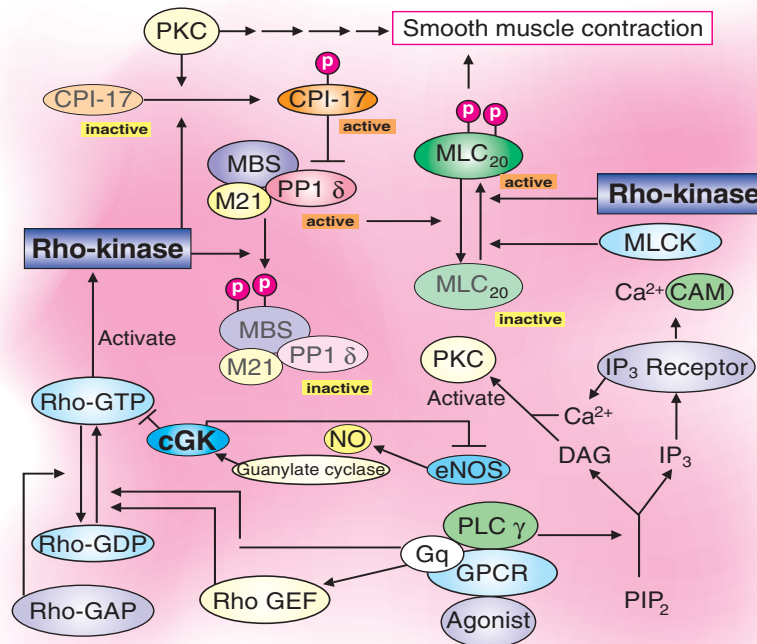




Kinase Assay Kits

Kinase Detection and Inhibitor
Screening Assay Kits

Signal transduction of smooth muscle contraction



For Research Only

Serine/Threonine Kinase Kits

Akt/PKB	MAPKAP Kinase 2
Aurora A	Mps1/TTK
Aurora Family	p38
CaM Kinase II	PDK1
Casein Kinase 2	Polo-like Kinase-1
Cdc2-Cyclin B	Polo-like Kinase-3
Checkpoint Kinases	PKA & PKC
cGK/PKG	Raf
JNK/SAPK	Rho Kinase

Tyrosine Kinase Kits

DYRK2
FGFR2
Lck/p56
Met
Pyk2
Src
Wee1

Phosphatase Assay Kits

PTP1B Phosphatase
T Cell Tyrosine Phosphatase (TC-PTP)
LMW-PTP/ACP1

Phospho-Specific Antibodies

Complete list of Phospho-Antibodies

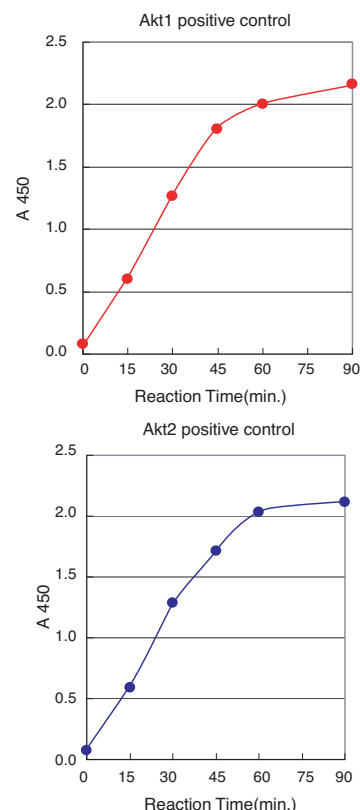
CycLex[®] Akt/PKB Kinase Assay/Inhibitor Screening Kit

KinaseSTAR[™] Akt/PKB Activity Assay Kit

The PI3K and Akt (also known as Protein Kinase B) signaling pathway regulates a variety of biological processes including survival, proliferation, cell growth, cell motility and glycogen metabolism. Akt mediates insulin- and IGF-1-induced cellular responses, such as the inhibition of glycogen synthase kinase-3, the stimulation of glucose uptake and the promotion of cell survival by inhibiting apoptosis. Mammals have three closely related Akt genes, encoding the isoforms Akt1, Akt2 and Akt3. Over-expression of Akt1 or Akt2 is associated with some human ovarian, pancreatic, and breast carcinomas¹⁾.

MBL has two different kits for measuring Akt activity. The **CycLex[®] Akt/PKB Kinase Assay/Inhibitor Screening Kit** is a single-site, non-quantitative immunoassay for Akt activity. Plates are pre-coated with "AKTide-2T", a specific Akt substrate that is efficiently phosphorylated by Akt1, 2 and 3. The detector antibody is AT-3E2, a monoclonal antibody that detects only the phosphorylated form of AKTide-2T. The kit can be used to study the kinetics of purified or partially purified Akt as well as to screen Akt inhibitors or activators.

The **KinaseSTAR[™] Akt/PKB Activity Assay Kit** utilizes an Akt-specific antibody to immunoprecipitate Akt from cell lysates. Akt-specific activity is then analyzed by determining the phosphorylation of GSK-3 α by Western blotting using a phospho-GSK-3 α (Ser21) specific antibody.



Time course of recombinant Akt1 and Akt2 enzyme reactions, as measured using the CycLex[®] Akt Kinase Inhibitor Screening kit (Code No. CY-1168).

Code No.	Products	Quantity
CY-1168	CycLex [®] AKT/PKB Kinase Assay/Inhibitor Screening Kit	96 wells
JM-K435-40	KinaseSTAR [™] Akt Activity Assay Kit	40 assays

Related Products

Code No.	Products	Quantity
CY-E1168-1	AKT1 Positive Control	5 units
CY-E1168-2	AKT2 Positive Control	5 units
CY-M1025	Anti-Phospho-AKTide-2T (Thr376) Monoclonal Antibody	100 μ g
JM-3247-100	Anti-Akt/PKB Polyclonal Antibody	100 μ g
JM-3257-100	Anti-Phospho-Akt (Ser473) Polyclonal Antibody	100 μ g
JM-3516-100	Anti-Phospho-GSK3 α / β (Ser21/Ser9) Polyclonal Antibody	100 μ g
JM-1701-1	Akt Inhibitor	1 mg
JM-7003-100	GSK-3 α /GST Fusion Protein, Human Recombinant	100 μ g
JM-7036-1	Akt Activated Cell Lysate	1 mg
JM-7035-1	Akt Negative Control Cell Lysate	1 mg

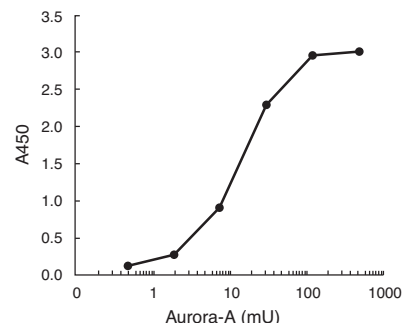
CycLex[®] Aurora A Kinase Assay/Inhibitor Screening Kit

CycLex[®] Aurora Family Kinase Assay/Inhibitor Screening Kit

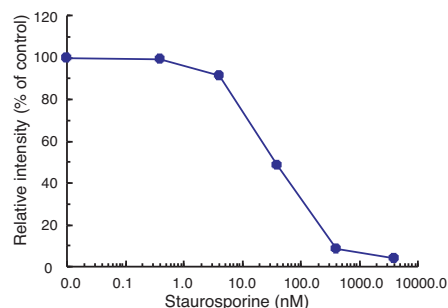
Aurora kinases regulate centrosome maturation, chromosome segregation, and cytokinesis. A-type Aurora kinases localize to both centrosomes and spindle microtubules and have been implicated in spindle assembly. The B-type Aurora kinases are present at centromeres in prophase and metaphase, before they relocate to the central spindle and the midbody in anaphase and telophase. The C-type Aurora kinases are expressed primarily in testis and some tumor cell lines, where they have been localized to spindle poles. All three Aurora kinases family members have been reported to be over-expressed in many human cancers, and elevated expression has been correlated with chromosomal instability, and in some instances with clinically aggressive disease²⁾.

MBL presents two kits for measuring Aurora kinase activity. The **CycLex[®] Aurora A Kinase Assay/Inhibitor Screening Kit** uses recombinant Lats2 as a specific Aurora A substrate. A detector antibody specifically recognizes only the phosphorylated form of the serine83 residue on Lats2. The kit is suitable for assaying the kinetics of purified or partially purified Aurora-A as well as for screening Aurora-A inhibitors.

The **CycLex[®] Aurora Family Kinase Assay/Inhibitor Screening Kit**, on the other hand, detects all 3 Aurora family kinases (Aurora A, B, and C) using "Aurora-substrate-1" as the substrate. Like the Aurora A kit, this colorimetric ELISA assay is ideal for screening for the effects of Aurora kinase inhibitors and activators on purified Aurora kinase proteins.



Dose dependency of recombinant Aurora-A enzyme reaction, as measured using the CycLex[®] Aurora A Kinase Inhibitor Screening kit (Code No. CY-1165).



Effect of the broad-spectrum kinase inhibitor staurosporine on Aurora-A activity

Code No.	Products	Quantity
CY-1165	CycLex [®] Aurora A kinase Assay/Inhibitor Screening Kit	96 wells
CY-1174	CycLex [®] Aurora Family Kinase Assay/Inhibitor Screening Kit	96 wells

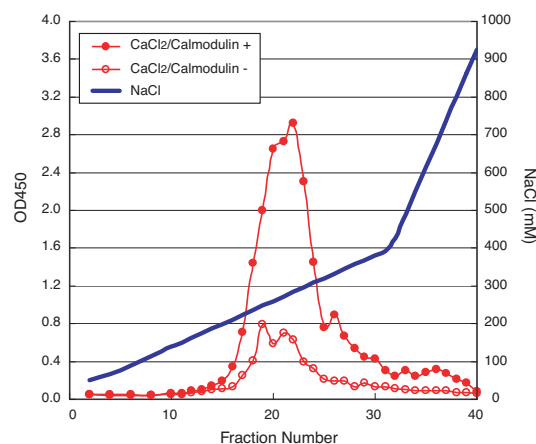
Related Products

Code No.	Products	Quantity
CY-E1165	Aurora A Positive Control	8 units
CY-E1174-1	Aurora B Positive Control	8 units
CY-E1174-2	Aurora C Positive Control	8 units
CY-M1020	Anti-PhosphoLats2 (Ser83) Monoclonal Antibody	100 µg

CycLex® CaM Kinase II Assay Kit

Ca²⁺/calmodulin-dependent protein kinase (CaM kinase II) is a ubiquitously expressed, multifunctional protein kinase involved in neurotransmitter synthesis and release, neuronal plasticity and gene expression. CaM-kinase II is highly concentrated at synapses that use glutamate as the neurotransmitter. CaM-kinase II phosphorylates the glutamate receptor and enhances the ion current, which may contribute to mechanisms of synaptic plasticity for learning and memory³. CaM kinase II requires calcium-bound calmodulin for activation and for its ability to phosphorylate and alter the function of a variety of substrates.

The **CycLex® CaM kinase II Assay Kit** is designed to measure the activity of CaM kinase II in cells lines or tissue homogenates and for screening for CaM Kinase inhibitors or activators. The assay is a simple 96-well ELISA that uses a phospho-specific monoclonal antibody to recognize the phospho-threonine residue in "Syntide-2", which can be efficiently phosphorylated by CaM kinase II.



RESOURCE Q column elution profile of CaM kinase II from rabbit brain extract, measured using the CycLex® CaM KII assay kit (Code No. CY-1173)

Code No.	Products	Quantity
CY-1173	CycLex® CaM-Kinase II Assay Kit	96 wells

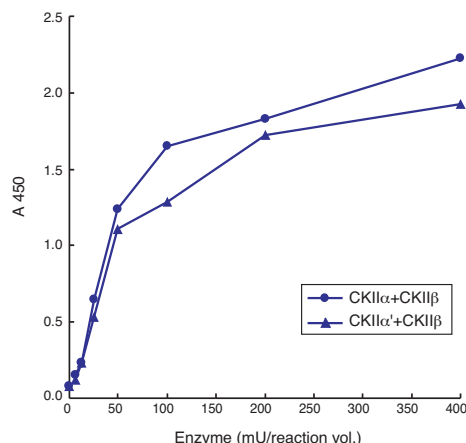
Related Products

Code No.	Products	Quantity
CY-E1173	CaM-kinase II Positive Control	3 units
CY-M1023	Anti-Phospho-Syntide-2 Monoclonal Antibody	100 µg

CycLex® Casein Kinase-2 (CK2) Assay/Inhibitor Screening Kit

Protein kinase CK2 is a ubiquitous and pleiotropic serine/threonine protein kinase that interacts with many different signaling pathways, especially those involved in specific phases of the cell cycle. The holoenzyme is composed of two catalytic (α and/or α') and two regulatory (β) subunits. Both the free α/α' catalytic subunits and the holoenzyme are constitutively active, a feature that is suspected to underlie CK2's oncogenic potential⁴. The enzyme is highly expressed in most cancers, and research suggests that CK2 dysregulation in tumors may influence their apoptotic activity⁵. Thus, CK2 is an attractive target for anti-neoplastic and antitumor drugs.

The **CycLex® CK2 Assay/Inhibitor Screening Kit** is designed to measure the activity of purified Casein Kinase-2 (CK2) for the rapid and sensitive evaluation of CK2 inhibitors or activators. The phospho-specific monoclonal antibody used in this assay kit specifically recognizes the phospho-serine46 residue in p53, which is phosphorylated by CK2 in vitro.



Dose dependency of the recombinant CK2 enzyme reaction, measured using the CycLex® CK2 assay kit (Code No. CY-1170) with positive controls CK2 α/β and CK2 α'/β .

Code No.	Products	Quantity
CY-1170	CycLex® Casein kinase-2 (CK2) Assay/Inhibitor Screening Kit	96 wells

Related Products

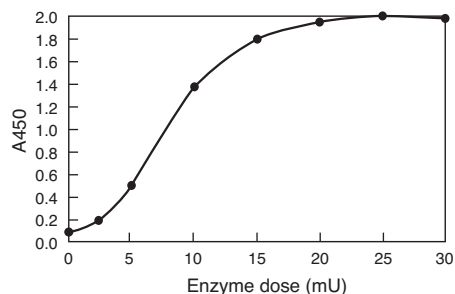
Code No.	Products	Quantity
CY-E1170-1	CK2 (α/β) Positive Control	4 units
CY-E1170-2	CK2 (α'/β) Positive Control	4 units

CycLex[®] Cdc2-Cyclin B Kinase Assay Kit MESACUP[®] Cdc2 Kinase Assay Kit

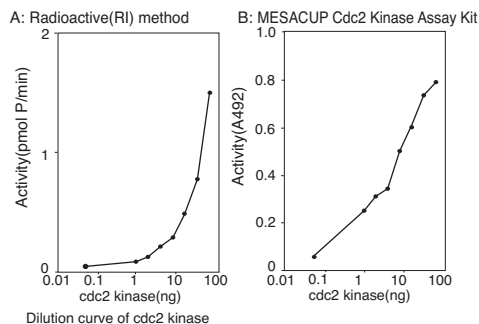
All transitions of the cell cycle are controlled through regulation of the cyclin-dependent kinases (Cdks). Cdc2 kinase, also known as Cdk1, associates with cyclin B to initiate the onset of mitosis. Cdc2 kinase and its homologues play an essential role in the regulation of the cell cycle and gene transcription.

The **CycLex[®] Cdc2-Cyclin B Kinase Assay Kit** is designed to accurately measure the presence and relative amount of Cdc2-Cyclin B kinase activity in cell extracts, tissue homogenates, or column fractions, and for the nonisotopic kinetic analysis of Cdc2-Cyclin B Kinase activity. The kit is also ideal for the identification of pharmacological modulators of Cdc2 kinase activity in an easy, colorimetric 96-well ELISA format. The kit includes a phospho-specific monoclonal antibody that specifically recognizes the phospho-Thr376 residue in human Cdc7, which is phosphorylated by Cdc2-Cyclin B kinase but not by Cdk2-Cyclin A, Cdk2-Cyclin E, Cdk4-Cyclin D or Cdk6-Cyclin D.

MBL has developed the **MESACUP[®] Cdc2 Kinase Assay Kit** to provide a simple, reliable and non-radioactive method for measuring Cdc2 kinase activity. The kit is based on an ELISA that utilizes a specific, biotinylated peptide as a substrate for the Cdc2 kinase and a monoclonal antibody recognizing the phosphorylated form of the peptide substrate. This method is as sensitive as the radioactive one and is less affected by concentrations of ATP present in the reaction mixture. The assay can be performed on crude cell extracts, column fractions or purified enzymes.



Dose dependency of the recombinant Cdc2-Cyclin B enzyme reaction, measured using the CycLex[®] Cdc2-Cyclin B assay kit (Code No. CY-1164)



Dilution curve of cdc2 kinase

Code No.	Products	Quantity
CY-1164	CycLex [®] Cdc2-Cyclin B Kinase Assay Kit	96 wells
5235	MESACUP [®] Cdc2/Cdk1 Kinase Assay Kit	96 wells

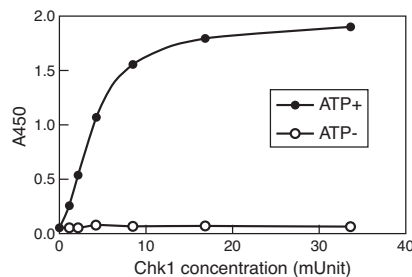
Related Products

Code No.	Products	Quantity
CY-E1164	Cdc-2 Cyclin B Positive Control	5 units
5236	HCK-gel	1 mL

CycLex[®] Checkpoint Kinase Assay/Inhibitor Screening Kit

Cdc25C phosphatase plays a crucial role in the regulation of the G2/M progression through the cell cycle. In response to DNA damage, various intracellular kinases including Chk1, Chk2, and C-TAK1 (Cdc25C-associated protein kinase), appear to phosphorylate Cdc25C on Ser216.

The **CycLex[®] Checkpoint Kinase Assay/Inhibitor Screening Kit** uses a phospho-Cdc25C(Ser216) monoclonal antibody to provide a specific and sensitive method to measure the activities of checkpoint kinases. This kit may be used to study the kinetics of purified or partially purified individual checkpoint kinases as well as for preinvestigational drug screening for checkpoint kinase inhibitors or activators.



Dose dependency of recombinant Chk1 enzyme reaction, measured using the CycLex[®] Checkpoint Kinase Assay Kit (Code No. CY-1162).

Code No.	Products	Quantity
CY-1162	CycLex [®] Checkpoint Kinase Assay/Inhibitor Screening Kit-1	96 wells

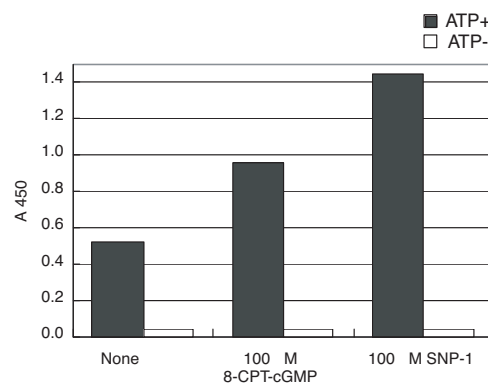
Related Products

Code No.	Products	Quantity
CY-E1162-1	Chk1 Positive Control	2 units
CY-E1162-2	Chk2 Positive Control	2 units
CY-E1162-3	C-TAK1 Positive Control	2 units

CycLex[®] Cyclic GMP dependent protein kinase (cGK/PKG) Assay Kit

Activation of cyclic GMP-dependent protein kinase (cGK/PKG) is an important event in the regulation of blood pressure and platelet function. Upstream signals include the generation of nitric oxide (NO) by NO synthases and the subsequent rise in cGMP levels mediated by NO-dependent guanyl cyclases (GCs). The identification of new cGK activators by high throughput screening (HTS) may lead to the development of a novel class of therapeutics for the treatment of cardiovascular diseases⁶.

The **CycLex[®] Cyclic GMP dependent protein kinase (cGK/PKG) Assay Kit** is a single-site immunoassay for cGK activity. Plates are pre-coated with a substrate corresponding to recombinant G-kinase substrate, which contains threonine residues that can be phosphorylated by cGK family members, including cGKI and cGKII. The kit may be used to determine the presence of cGK activity in cell lysates, tissue homogenates, purification column fractions, or to follow the kinetics of a purified or partially purified cGK protein, as well as for screening for cGK inhibitors.



Activation of full length PKGIa expressed in 293T cell by 8-CPT-cGMP and SNP-1 in vivo, measured using the CycLex[®] cGK assay kit (Code No. CY-1161).

Code No.	Products	Quantity
CY-1161	CycLex [®] Cyclic GMP dependent protein kinase (cGK) Assay Kit	96 wells

Related Products

Code No.	Products	Quantity
CY-E1161-1	Cyclic GMP dependent protein kinase (cGK) Positive Control (Catalytic Domain)	4000 units
CY-E1161-2	Cyclic GMP dependent protein kinase (cGK) Positive Control (full length)	4000 units
JM-K372-100	cGMP Direct Immunoassay Kit	100 assays

KinaseSTAR[™] JNK Activity Assay Kit

KinaseSTAR[™] JNK Activity Screening Kit

JNK (c-Jun N-terminal kinase), also called stress activated protein kinase (SAPK), is a member of the serine/threonine MAP kinase family. JNK is activated in response to a variety of stimuli, including inflammatory cytokines, growth factors and cellular stresses such as UV-light. JNK plays a key role in several basic cellular processes such as inflammation and apoptosis.

The **KinaseSTAR[™] JNK Activity Assay Kit** utilizes a JNK-specific antibody to immunoprecipitate JNK from cell lysates. JNK-specific activity is then analyzed by detecting the phosphorylation of c-Jun by Western blotting with a phospho-c-Jun specific antibody.

The **KinaseSTAR[™] JNK Activity Screening Kit** is designed to rapidly and easily screen large numbers of samples for JNK activity. The kit uses an N-terminal c-Jun (1-79) fusion protein bound to glutathione sepharose beads to selectively precipitate JNK from cell lysates. After washing to remove non-specifically bound proteins, the kinase reaction is then carried out in the presence of cold ATP. c-Jun phosphorylation is measured by Western blot analysis using a phospho-c-Jun specific antibody.

Code No.	Products	Quantity
JM-K431-40	KinaseSTAR [™] JNK Activity Assay Kit	40 tests
JM-K430-40	KinaseSTAR [™] JNK Activity Screening Kit	40 tests

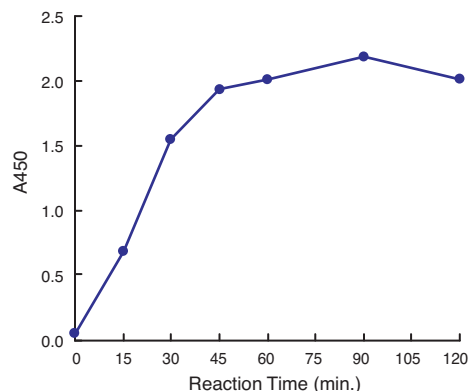
Related Products

Code No.	Products	Quantity
JM-7001-100	c-Jun/GST Fusion Protein (1-79), Human Recombinant	100 µg
JM-3502-100	Anti-Phospho-c-Jun (Ser73) Polyclonal Antibody	100 µg
JM-3701-100	Anti-JNK Polyclonal Antibody	100 µg
JM-3589-100	Anti-Phospho-JNK/SAPK (Thr183/Tyr185) Polyclonal Antibody	100 µg
JM-7011-50	JNKI1 (JNK Peptide Inhibitor I)	50 µL
JM-7021-50	JNKI1 Negative Control Peptide	50 µL
JM-7032-1	JNK Activated Jurkat Cell Lysate	1 mg
JM-7031-1	JNK Negative Jurkat Cell Lysate	1 mg

CycLex[®] MAPKAP- kinase2 Assay/Inhibitor Screening Kit

MAP kinase-activated protein kinase 2 (MAPKAP-kinase 2) is a substrate for p38 MAPK, which is involved in the biosynthesis of inflammatory cytokines, apoptosis, and platelet aggregation. Treatment of cells with endotoxin, interleukin-1, tumor necrosis factor, or various stress stimuli activate p38 MAPK and MAPKAP-kinase 2. Recently it was reported that the major substrate for MAPKAP-kinase 2 in human neutrophils is LSP1 (Leukocyte Specific Protein 1), a 339-amino acid cytoskeletal protein expressed in neutrophils, lymphocytes, and macrophages⁷.

The **CycLex[®] MAPKAP-kinase2 Assay/Inhibitor Screening Kit** provides a non-isotopic, sensitive, and specific method to detect MAPKAP-kinase 2 activity for HTS screening applications. The phospho-serine monoclonal antibody used in this assay binds the phospho-Ser204 residue in LSP1 (Leukocyte Specific Protein 1), which is phosphorylated by MAPKAP-kinase 2 *in vitro*.



Time course of recombinant MAPKAP-kinase 2 enzyme reaction, measured using the CycLex[®] MAPKAP-K2 assay kit (Code No. CY-1166).

Code No.	Products	Quantity
CY-1166	CycLex [®] MAPKAP-kinase 2 Assay/Inhibitor Screening Kit	96 wells

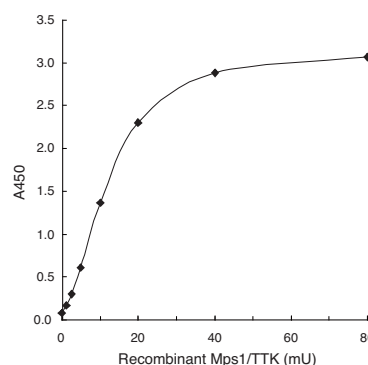
Related Products

Code No.	Products	Quantity
CY-E1166	MAPKAP-kinase 2 Positive Control	4 units
CY-M1019	Anti-Phospho-LSP1 (Ser204) Monoclonal Antibody	100 µg

CycLex[®] Mps1/TTK Kinase Assay/Inhibitor Screening Kit

Mps1 plays a role in cell cycle control; expression of human Mps1 is markedly reduced or absent in resting cells and tissues.

The **CycLex[®] Mps1/TTK Kinase Assay/Inhibitor Screening Kit** is designed to measure the activity of purified human Mps1/TTK for the rapid and sensitive evaluation of inhibitors or activators. The phospho-serine specific monoclonal antibody in this assay kit has been demonstrated to recognize the phospho-serine residue in recombinant human Mps1-substrate, which is phosphorylated by human Mps1/TTK.



Dose dependency of recombinant human Mps1 enzyme reaction measured using the CycLex[®] Mps1/TTK Kinase Assay kit (Code No. CY-1179)

Code No.	Products	Quantity
CY-1179	CycLex [®] Mps1/TTK Assay/Inhibitor Screening Kit	96 wells

Related Products

Code No.	Products	Quantity
CY-E1179	Mps1/TTK Positive Control	200 assays

CycLex® p38 Assay/Inhibitor Screening Kit

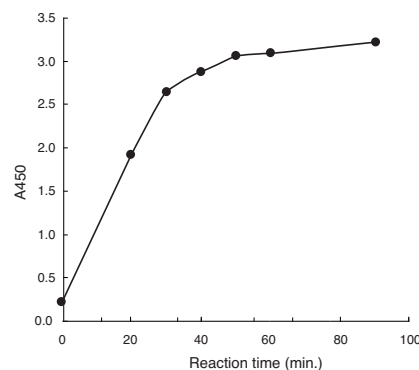
The p38 α MAPK pathway is critical for inflammatory cytokine production and signaling.

The **CycLex® p38 Assay/Inhibitor Screening Kit** is designed to measure the activities of purified p38 (p38) for the rapid and sensitive evaluation of inhibitors using recombinant p38. The phospho-threonine specific polyclonal antibody used in this assay kit recognizes the phospho-threonine 71 residue in ATF2, which is efficiently phosphorylated by p38.

Code No.	Products	Quantity
CY-1177	CycLex® p38 Assay/Inhibitor Screening Kit	96 wells

Related Products

Code No.	Products	Quantity
CY-E1177	p38 Positive Control	200 assays



Time course of recombinant p38 enzyme reaction (4 m units in assay) as measured using the CycLex® p38 Assay kit (Code No. CY-1177)

CycLex® PDK1 Assay/Inhibitor Screening Kit

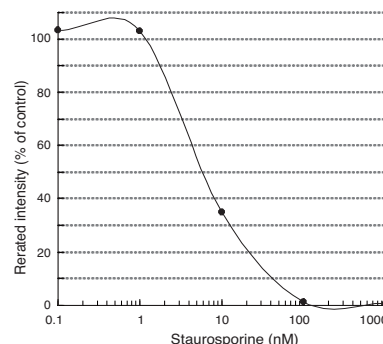
The PDK1/Akt signaling pathway plays a key role in cancer cell growth, survival, and tumor angiogenesis.

The **CycLex® PDK1 Assay/Inhibitor Screening Kit** is designed to measure the activities of purified PDK1 for the rapid and sensitive evaluation of inhibitors using recombinant PDK1. The phospho-threonine specific polyclonal antibody used in this assay kit has been demonstrated to recognize the phospho-threonine 308 in AKT1, which is efficiently phosphorylated by PDK1.

Code No.	Products	Quantity
CY-1180	CycLex® PDK1 Assay/Inhibitor Screening Kit	96 wells

Related Products

Code No.	Products	Quantity
CY-E1180	PDK1 Positive Control	200 assays

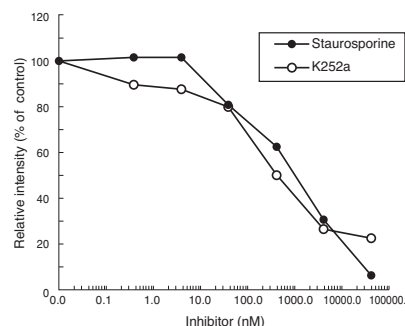


Effect of broad-spectrum kinase inhibitor staurosporine on PDK1 activity measured using the CycLex® PDK1 Inhibitor Screening kit (Code No. CY-1180)

CycLex® Polo-like kinase-1 (PLK-1) Assay/Inhibitor Screening Kit

Polo-like kinases (PLK) are important contributors to several cell-cycle events. PLKs function in centrosome assembly and separation during the formation of the bipolar spindle. In mammalian cells, antibody microinjection suggests a role for PLK-1 in centrosome maturation and in the separation of sister chromatids during mitosis. Elevated expression of PLK-1 occurs in many different types of cancer, and PLK-1 has been proposed as a marker for several tumors⁸⁾.

The colorimetric **CycLex® Polo-like kinase-1 (PLK-1) Inhibitor Screening Kit** uses an HRP-coupled polyclonal anti-phosphothreonine to detect phosphorylation of a proprietary, specific PLK-1 substrate. The assay provides a non-isotopic, sensitive, and specific method to screen for activators or inhibitors of PLK-1 activity.



Effect of broad-spectrum kinase inhibitors staurosporine and K252a on PLK-1 activity, as measured using the CycLex® PLK-1 Inhibitor Screening kit (Code No. CY-1163)

Code No.	Products	Quantity
CY-1163	CycLex® Polo-like kinase 1 Assay/Inhibitor Screening Kit	96 wells

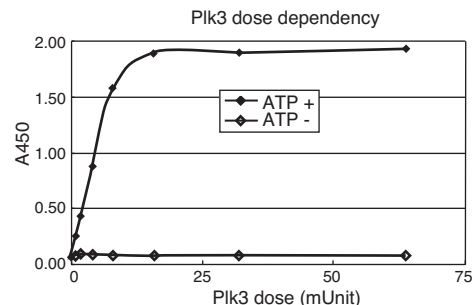
Related Products

Code No.	Products	Quantity
CY-E1163	Plk1 Positive Control	2 units

CycLex[®] Polo-like kinase-3 (PLK-3) Assay/Inhibitor Screening Kit

Polo-like kinases (PLK) are important contributors to several cell-cycle events. PLK-3 contributes to regulation of M phase of the cell cycle. In contrast to PLK-1, overexpression of PLK-3 in mammalian cells suppresses proliferation, inhibits colony formation, and induces apoptosis and chromatin condensation. PLK-3 has therefore been suggested as a candidate tumor suppressor, and its expression is down-regulated or absent in several human carcinomas⁹. PLK-3 functionally links DNA damage to cell cycle arrest and apoptosis via interaction with p53.

The **CycLex[®] Polo-like kinase-3 (PLK-3) Assay/Inhibitor Screening Kit** uses a monoclonal anti-phosphoserine to detect phosphorylation of a proprietary, recombinant protein that is a specific PLK-3 substrate. The nonradioactive ELISA-format assay permits easy and sensitive detection of the effects of pharmacological agents on PLK-3 activity.



Dose dependency of recombinant PLK-3 enzyme reaction, as measured using the CycLex[®] PLK-3 Inhibitor Screening Kit (Code No. CY-1176)

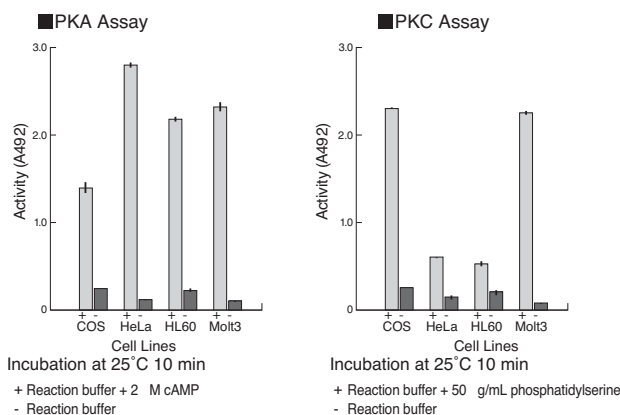
Code No.	Products	Quantity
CY-1176	CycLex [®] Polo-like kinase-3 (PLK-3) Assay/Inhibitor Screening Kit	96 wells

Related Products

Code No.	Products	Quantity
CY-E1176	PLK-3 Positive Control	1.6 units

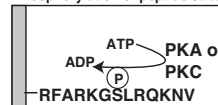
MESACUP[®] PKA/PKC Protein Kinase Assay Kit

MBL has developed the **MESACUP[®] Protein Kinase Assay Kit** to provide a simple, reliable and non-radioactive method for measuring the activities of either cAMP-dependent protein kinase (PKA) or protein kinase C (PKC). The kit is based on an enzyme linked immunosorbent assay (ELISA) that uses a synthetic pseudosubstrate peptide and a monoclonal antibody recognizing the phosphorylated form of the peptide. By using different buffers and including either cAMP (for assaying PKA) or calcium and phosphatidylserine (for assaying PKC), the same kit can be used to specifically detect activity by either kinase. The assay can be performed on crude cell extracts, column fractions or purified enzymes and excels in detecting the effects of pharmacological agents on PKA/PKC.



Assay Procedure

Phosphorylation of peptide substrate



Biotinylated antibody reaction



Streptavidin-peroxidase reaction



Development



Code No.	Products	Quantity
5230	MESACUP [®] Protein Kinase Assay Kit	96 wells

Related Products

Code No.	Products	Quantity
JM-K371-100	cAMP Activity Assay Kit	100 tests

CycLex® Protein Kinase C (PKC) Superfamily Assay Kit

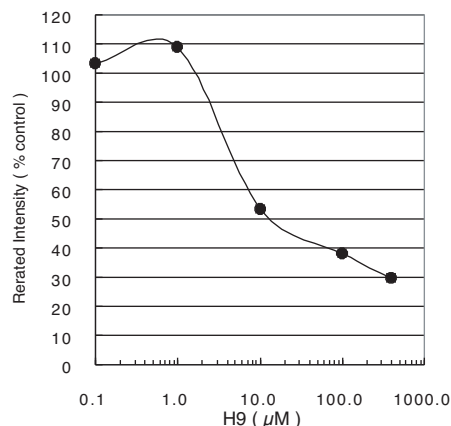
PKC isoenzymes are involved in multiple biochemical processes relevant to cell growth, differentiation, and transformation. PKC plays critical roles in transducing signals from a plethora of extracellular receptors, including those for hormones, neurotransmitters, growth factors, and antigens. At present, the PKC family of serine/threonine-specific protein kinases includes eleven known members that exhibit differences in tissue distribution, intracellular localization, and cofactor requirements. The PKC isoenzymes are grouped into three subfamilies¹⁰. Members of the Ca^{2+} -dependent subfamily (conventional PKCs), include PKC α , PKC β I and β II, and PKC γ . Members of the second subfamily (novel PKCs) can bind acidic phospholipids but are Ca^{2+} -independent and include PKC δ , ϵ , η , θ and μ . A third PKC subfamily (atypical) includes PKC ζ and ι/λ , which cannot bind phospholipids or phorbol esters.

The **CycLex® Protein Kinase C Superfamily Assay Kit** is ideal for detecting the activity of purified Protein Kinase C (PKC) in high throughput screening applications. The phospho-specific monoclonal antibody used in this assay binds to the phospho-Thr38 residue in CPI-17, which is efficiently phosphorylated by PKC. The kit can be used to determine the PKC activity in column fractions, cell lysates, and tissue homogenates.

Code No.	Products	Quantity
CY-1175	CycLex® Protein Kinase C Assay Kit	96 wells

Related Products

Code No.	Products	Quantity
JM-3450-100	Anti-PKC Polyclonal Antibody	0.1 mg
JM-3451-100	Anti-Phospho-PKC (Ser660) Polyclonal Antibody	0.1 mg
CY-M1024	Anti-Phospho-CPI-17 (Thr38) Monoclonal Antibody	0.1 mg



Effect of specific protein kinase C inhibitor H9 on activity of rat brain Protein kinase C, as measured using the CycLex® Protein Kinase C Superfamily Assay Kit (Code No. CY-1175)

Conventional PKC	
PKC α	+
PKC β I	+
PKC β II	+
PKC γ	+
Novel PKC	
PKC δ	+
PKC ϵ	+
PKC η	+
PKC θ	-
PKC μ	+
Atypical PKC	
PKC ζ	N/A
PKC ι/λ	N/A

Detectable activities of protein kinase C isozymes using the CycLex® Protein kinase C Assay Kit (Code No. CY-1175)

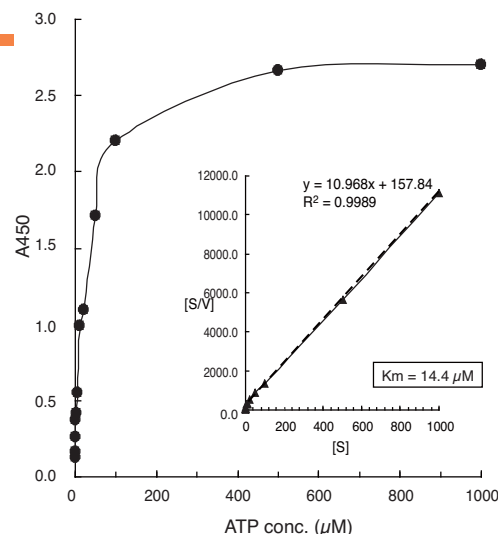
CycLex® Raf kinase Assay/Inhibitor Screening Kit

The B-Raf gene has recently been reported to have somatic mutations in 66% of malignant melanomas, as well as being implicated in many other human malignancies. The **CycLex® Raf kinase Assay/Inhibitor Screening Kit** is designed to measure the activities of purified Raf-1, A-Raf or B-Raf for the rapid and sensitive evaluation of inhibitors using recombinant Raf kinases. The phospho-threonine specific polyclonal antibody used in this assay kit has been demonstrated to recognize the phospho-threonine residue in a specific Raf-substrate that is efficiently phosphorylated by Raf kinases.

Code No.	Products	Quantity
CY-1171	CycLex® Raf kinase Assay/Inhibitor Screening Kit	96 wells

Related Products

Code No.	Products	Quantity
CY-E1171-1	B-Raf Positive Control	200 assays

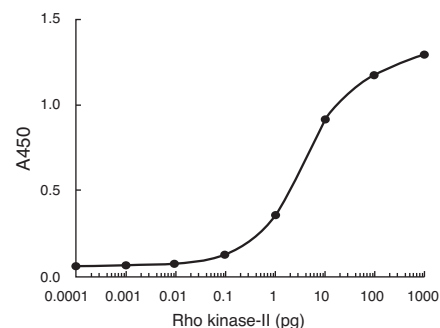


Km for ATP (recombinant B-Raf), measured using the CycLex® Raf Kinase Assay Kit (Code No. CY-1171).

CycLex[®] Rho-kinase Assay Kit

Rho Kinase (ROCK) regulates the formation of actin stress fibers and focal adhesion. ROCK also is involved in smooth muscle contraction via phosphorylation of myosin light chain and the myosin binding subunit of myosin phosphatase (MBS). ROCK is cleaved by caspase-3 during apoptosis, and it modulates aqueous humor outflow, making Rho kinase a target for the development of drugs to control intraocular pressure in glaucoma patients¹¹.

The **CycLex[®] Rho-kinase Assay Kit** uses anti-phospho-MBS(Thr696) monoclonal antibody to specifically detect Rho kinase activity. The kit may also be used for the detection of myotonic dystrophy protein kinase (DMPK) activity. The kit is ideal for screening for activators and inhibitors of ROCK activity.



Dose dependency of Rho kinase-II catalytic domain enzyme reaction, measured using the CycLex[®] Rho Kinase Assay Kit (Code No. CY-1160).

Code No.	Products	Quantity
CY-1160	CycLex [®] Rho-kinase Assay Kit	96 wells

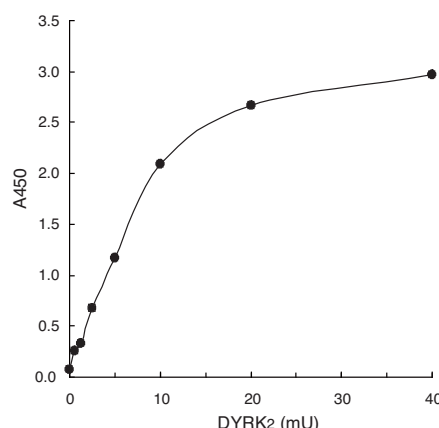
Related Products

Code No.	Products	Quantity
CY-E1160-1	Rho-kinase Positive Control	2 units
CY-E1160-2	DMPK Positive Control	1 unit
CY-M1011	Anti-Phospho-MBS/MYPT(Thr696) Monoclonal Antibody	100 µg

Tyrosine Kinases

CycLex[®] DYRK2 Kinase Assay/Inhibitor Screening Kit

DYRK2 regulates p53 to induce apoptosis in response to DNA damage. The **CycLex[®] DYRK2 Kinase Assay/Inhibitor Screening Kit** is designed to measure the activities of purified DYRK2 for the rapid and sensitive evaluation of inhibitors or activators. The phospho-serine specific monoclonal antibody used in this assay kit has been demonstrated to recognize the phospho-serine 46 residue in p53, which is phosphorylated by DYRK2 in vitro.



Dose dependency of recombinant DYRK2 enzyme reaction, measured using the CycLex[®] DYRK2 Kinase Assay/Inhibitor Screening Kit (Code No. CY-1181).

Code No.	Products	Quantity
CY-1181	CycLex [®] DYRK2 Kinase Assay/Inhibitor Screening Kit	96 wells

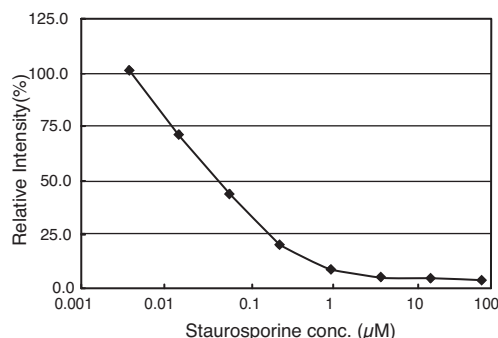
Related Products

Code No.	Products	Quantity
CY-E1181	DYRK2 Positive Control	200 assays

CycLex[®] FGFR2 Kinase Assay/Inhibitor Screening Kit

The fibroblast growth factor receptor (FGFR) family consists of four known members, FGFR1-4. The FGFR1 and FGFR2 genes are expressed in both normal and breast cancer tissues, and overexpression of FGFR1 and FGFR2 has been reported in 5–10% of primary breast cancer specimens¹²⁾. The FGFR2 gene is localized to the same chromosomal region as the mutation responsible for Crouzon syndrome, and FGFR2 has been identified as a candidate marker for the clinical disorder¹³⁾. Mutations in the FGFR2 gene are found in patients with Crouzon syndrome, Apert syndrome, Pfeiffer syndrome, and Jackson-Weiss syndrome.

The **CycLex[®] FGFR2 Kinase Assay/Inhibitor Screening Kit** is designed for the rapid and sensitive evaluation of inhibitors or activators of FGFR2 in an easy, nonradioactive ELISA-format assay. The phosphotyrosine-specific monoclonal antibody in this assay kit recognizes the phosphotyrosine residue in recombinant "Tyrosine kinase-substrate-1", which is efficiently phosphorylated by the recombinant catalytic domain of FGFR2 *in vitro*.



Effect of broad-spectrum kinase inhibitor staurosporine on activity of recombinant FGFR2 catalytic domain enzyme reaction, measured using the CycLex[®] FGFR2 Kinase Assay/Inhibitor Screening Kit (Code No. CY-1082).

Code No.	Products	Quantity
CY-1082	CycLex [®] FGFR2 Kinase Assay/Inhibitor Screening Kit	96 wells

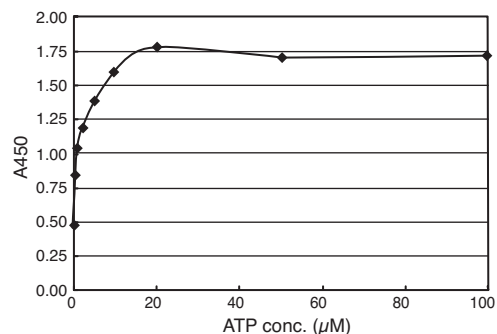
Related Products

Code No.	Products	Quantity
CY-E1082	FGFR2 Kinase Recombinant Positive Control	100 units

CycLex[®] Lck Kinase Assay/Inhibitor Screening Kit

Lck is a 56-kDa tyrosine kinase that is predominantly expressed in T lymphocytes, where its overexpression renders T cells hypersensitive to antigen stimulation. Mice deficient in Lck exhibit a severe defect in T cell maturation. A member of the Src kinase family, Lck is activated by the binding of CD4 to class II MHC molecules on antigen-presenting cells. A portion of cellular Lck associates with CD4 to propagate key biochemical signals in CD4 co-receptor function¹⁴⁾.

The **CycLex[®] Lck Kinase Assay/Inhibitor Screening Kit** is a single-site immunoassay for measuring the kinase activity of the recombinant catalytic domain of Lck. The "Tyrosine kinase-binding module-1" is used to bind Lck to a microtiter plate and subsequently activate Lck activity. The phosphotyrosine detector antibody specifically recognizes the phosphotyrosine residue on the catalytic domain of Lck itself, permitting the kit to efficiently measure the intensity of the autophosphorylation of Lck.



Dose dependency of ATP on recombinant Lck catalytic domain, measured using the CycLex[®] Lck Kinase Assay/Inhibitor Screening Kit (Code No. CY-1084).

Code No.	Products	Quantity
CY-1084	CycLex [®] Lck Kinase Assay/Inhibitor Screening Kit	96 wells

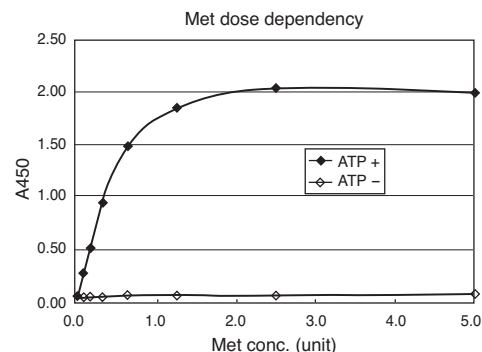
Related Products

Code No.	Products	Quantity
CY-E1084	p56/Lck Kinase Recombinant Positive Control	100 units

CycLex[®] Met Kinase Assay/Inhibitor Screening Kit

Met receptor tyrosine kinase is a disulfide-linked, heterodimeric receptor expressed predominantly in epithelial cells. The ligand of the Met receptor is Hepatocyte Growth Factor (HGF/scatter factor). Signaling pathways activated by the HGF-Met interaction are involved in cell adhesion and motility. Additionally, Met mediates malignant cell transformation. Increased Met expression has been found in a significant percentage of human cancers and is amplified during the transition between primary tumors and metastasis. Dysregulation of Met activity in cells is a key event underlying tumor metastasis, and Met overexpression and hyperactivation correlate with the metastatic ability of tumor cells¹⁵.

The **CycLex[®] Met Kinase Assay/Inhibitor Screening Kit** measures the activities of recombinant catalytic domain of Met for the rapid and sensitive evaluation of inhibitors or activators. An anti-phosphotyrosine monoclonal antibody specifically recognizes the phosphotyrosine residue in the recombinant catalytic domain of Met, which is captured and activated by recombinant "Tyrosine kinase-binding module-1" that has been immobilized on a microtiter plate.



Dose dependency of recombinant Met catalytic domain enzyme reaction, in the presence or absence of ATP, measured using the CycLex[®] Met Kinase Assay/Inhibitor Screening Kit (Code No. CY-1080).

Code No.	Products	Quantity
CY-1080	CycLex [®] Met Kinase Assay/Inhibitor Screening Kit	96 wells

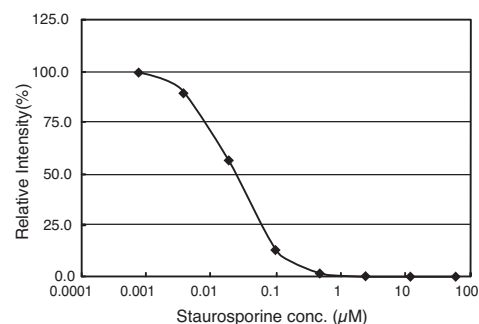
Related Products

Code No.	Products	Quantity
CY-E1080	Met Kinase Recombinant Positive Control	100 units

CycLex[®] Pyk2 Kinase Assay/Inhibitor Screening Kit

Pyk2 (Proline-rich Tyrosine Kinase 2), a member of the focal adhesion kinase family, is a stress-sensitive mediator of the JNK signaling pathway¹⁶. Activation of Pyk2 kinase leads to the modulation of ion channel function and initiation of the MAP kinase/p38 cascade. Pyk2 is activated in response to various stimuli, such as TNF- α , changes in osmolarity, elevation in intracellular Ca²⁺ concentration, lysophosphatidic acid, and the neuropeptide bradykinin. Pyk2 is expressed mainly in the central nervous system and in hematopoietic cells. Pyk2 represents an important signaling intermediate between neuropeptides-activated receptors or neurotransmitters that increase calcium flux and the downstream signals that regulate neuronal activity¹⁷.

The **CycLex[®] Pyk2 Kinase Assay/Inhibitor Screening Kit** includes "Tyrosine kinase-substrate-1", a recombinant substrate bound to the plate, which is efficiently phosphorylated by the recombinant catalytic domain of Pyk2. A phosphotyrosine monoclonal antibody detects phosphorylation of the substrate in a sensitive, colorimetric immunoassay. The kit is ideal for HTS screening of Pyk2 activators and inhibitors.



Effect of the broad-spectrum kinase inhibitor Staurosporine on the activity of recombinant Pyk2 catalytic domain enzyme reaction, measured using the CycLex[®] Pyk2 Kinase Assay/Inhibitor Screening Kit (Code No. CY-1081).

Code No.	Products	Quantity
CY-1081	CycLex [®] Pyk2 Kinase Assay/Inhibitor Screening Kit	96 wells

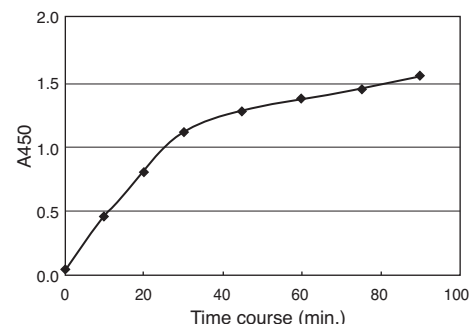
Related Products

Code No.	Products	Quantity
CY-E1081	Pyk2 Kinase Recombinant Positive Control (Catalytic Domain)	100 units

CycLex[®] Src Kinase Assay/Inhibitor Screening Kit

The Src family of non-receptor protein tyrosine kinases plays critical roles in a variety of signal transduction pathways, regulating such diverse processes as cell division, motility, adhesion, angiogenesis, and survival. Src family kinases are capable of inducing malignant transformation of a variety of cell types and are frequently overexpressed in many cancers, especially colorectal and breast cancers. Further, the extent of increased Src activity correlates with malignant potential and patient survival¹⁸. Src is important for multiple aspects of tumor progression, including proliferation, disruption of cell/cell contacts, migration, invasiveness, resistance to apoptosis, and angiogenesis.

The **CycLex[®] Src Kinase Assay/Inhibitor Screening Kit** is a single-site, non-quantitative immunoassay for kinase activity of the catalytic domain of Src. Plates are pre-coated with a "Tyrosine kinase-binding module-1", which can easily bind the recombinant Src and subsequently activate Src kinase activity. An antibody specifically detects the phosphotyrosine residue on the recombinant catalytic domain of Src itself, which means that this kit measures the intensity of autophosphorylation of the Src catalytic domain. The assay may be used in HTS to detect the effects of pharmacological agents on the recombinant catalytic domain of Src.



Time course of recombinant Src catalytic domain enzyme reaction, measured using the CycLex[®] Src Kinase Assay/Inhibitor Screening Kit (Code No. CY-1083).

Code No.	Products	Quantity
CY-1083	CycLex [®] Src Kinase Assay/Inhibitor Screening Kit	96 wells

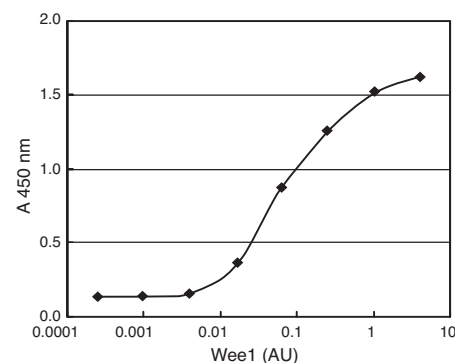
Related Products

Code No.	Products	Quantity
CY-E1083	c-Src Kinase Recombinant Positive Control	100 units

CycLex[®] Wee1 Kinase Assay/Inhibitor Screening Kit

Wee1 kinase negatively regulates entry into mitosis by catalyzing the inhibitory tyrosine phosphorylation of Cdc2/cyclin B kinase¹⁹. Wee1 activity increases during S and G2 phases, but is sharply decreased during M phase. Wee1, along with Chk1, also regulates the G2 DNA damage checkpoint in p53-deficient tumor cells, mostly likely by inhibiting Cdc2 activity.

The phospho-tyrosine specific monoclonal antibody used in the **CycLex[®] Wee1 Kinase Assay/Inhibitor Screening Kit** recognizes the phospho-Tyr15 residue in Cdc2, which is phosphorylated by Wee-1 in vitro. This assay provides a non-isotopic, sensitive and specific method to measure the activities of Wee1 kinase in a 96-well ELISA format. The kit is ideal for screening for activators and inhibitors of Wee-1 activity.



Dose dependency of recombinant Wee1 enzyme reaction, measured using the CycLex[®] Wee1 Kinase Assay/Inhibitor Screening Kit (Code No. CY-1172).

Code No.	Products	Quantity
CY-1172	CycLex [®] Wee1 Kinase Assay/Inhibitor Screening Kit	96 wells

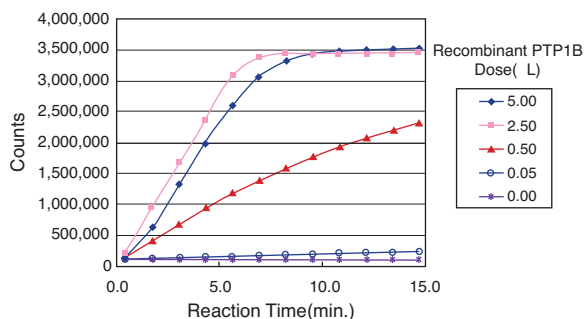
Related Products

Code No.	Products	Quantity
CY-E1172	Wee1 Positive Control	8 units

CycLex[®] Protein Tyrosine Phosphatase 1B (PTP1B) Fluorometric Assay Kit

Protein-tyrosine phosphatase (PTP1B) is a ubiquitous, non-transmembrane tyrosine phosphatase that negatively regulates insulin signaling by dephosphorylating the phosphotyrosine residues of insulin receptor kinase. In addition to modulation of insulin sensitivity, PTP1B plays a role in fuel metabolism via regulation of the leptin receptor pathway. PTP1B is a potential therapeutic target for the treatment of type II diabetes and obesity²⁰.

The **CycLex[®] PTP1B Fluorometric Assay Kit** is a fluorometric, non-radioactive assay designed to measure the activity of PTP1B. This 96-well assay is useful for the sensitive screening and evaluation of inhibitors and modulators of PTP1B activity in HTS applications. The kit includes all necessary components, including recombinant human PTP1B (residues 1-322), for use in preinvestigational drug discovery assays.



Time Course Curve of Recombinant PTP1B, measured using the CycLex[®] PTP1B Fluorometric Assay Kit (Code No. CY-1350).

Code No.	Products	Quantity
CY-1350	CycLex [®] Protein Tyrosine Phosphatase 1B (PTP1B) Fluorometric Assay Kit	100 assays

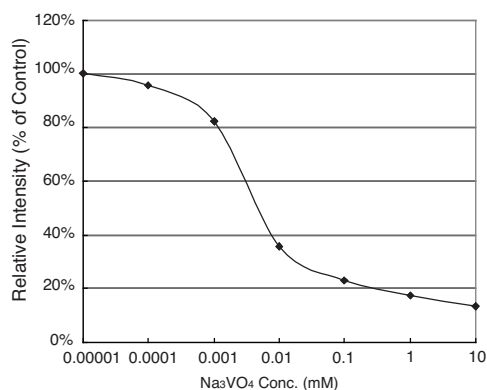
Related Products

Code No.	Products	Quantity
CY-E1350	Protein Tyrosine Phosphatase 1B (PTP1B) Positive Control	2 units

CycLex[®] Protein Phosphatase LMW-PTP/ACP1 Fluorometric Assay Kit

LMW-PTP/ACP1 is a positive regulator of both tumor onset and development through ephrin-EphA2 signaling process, and it is a potential target of anticancer drug development.

The **CycLex[®] Protein Phosphatase LMW-PTP/ACP1 Fluorometric Assay Kit** is a fluorometric and non-radioactive assay designed to measure the activity of LMW-PTP/ACP1 protein phosphatase. This 96-well assay is useful for screening inhibitors and modulators of LMW-PTP/ACP1 activity in HTS. The kit includes all necessary components, including recombinant, human full length LMW-PTP/ACP1, for use in preinvestigational drug discovery assays.



LMW-PTP/ACP1 Inhibition Curve by Na₃VO₄ (SOV; Sodium Orthovanadate), measured using the CycLex[®] Protein Phosphatase LMW-PTP/ACP1 Fluorometric Assay Kit (Code No. CY-1358).

Code No.	Products	Quantity
CY-1358	CycLex [®] Protein Phosphatase LMW-PTP/ACP1 Fluorometric Assay Kit	100 assays

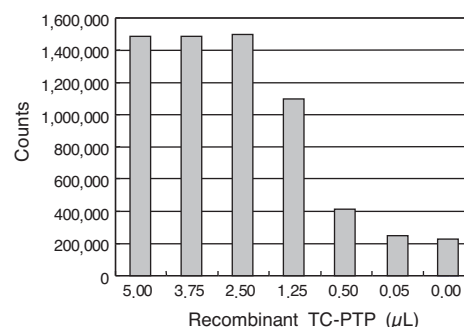
Related Products

Code No.	Products	Quantity
CY-E1358	LMW-PTP/ACP1 Positive Control	100 assays

CycLex® T Cell Protein Tyrosine Phosphatase (TC-PTP) Fluorometric Assay Kit

T-cell protein tyrosine phosphatase (TC-PTP) is an intracellular phosphatase implicated in the regulation of growth factor signaling. Both the EGF receptor and the adaptor protein p52Shc have been identified as TC-PTP substrates²¹. Additionally, TC-PTP has been linked to the dephosphorylation of the insulin receptor and acts as a negative regulator of cytokine signaling via dephosphorylation of the Jak family of tyrosine kinases²².

The **CycLex® TC-PTP Fluorometric Assay Kit** is a convenient, highly sensitive, homogenous assay suitable for high throughput screening applications. First, Fluoro-Phospho-Substrate, a unique phosphorylated PTP substrate, is incubated with human TC-PTP enzyme. Dephosphorylation of the substrate sensitizes it so that, in the second step, treatment with the development solution produces a fluorophore that is easily analyzed using a fluorometric plate reader or a fluorometer.



Dose Dependency of Recombinant TC-PTP using the Two-Step Method, measured using the CycLex® TC-PTP Fluorometric Assay Kit (Code No. CY-1351).

Code No.	Products	Quantity
CY-1351	CycLex® T Cell Protein Tyrosine Phosphatase (TC-PTP) Fluorometric Assay Kit	100 assays

Related Products

Code No.	Products	Quantity
CY-E1351	T Cell Protein Tyrosine Phosphatase (TC-PTP) Positive Control	2 units

References

- Cheng, J.Q., et al. 1996. Proc. Natl. Acad. Sci. USA **93**: 3636-3641.
- Zhou, H., et al. 1998. Nat. Genet. **20**: 189-193.
- Soderling, T.R. 2000. Curr. Opin. Neurobiol. **10**: 375-380.
- Landesman-Bollag, E., et al. 2001. Oncogene **20**: 3247-3257.
- Li, P., et al. 2002. Mol. Cell **10**: 247-258.
- Yamahara, K., et al. 2003. Proc. Natl. Acad. Sci. USA **100**: 3404-3409.
- Huang, C.K., et al. 1997. J. Biol. Chem. **272**: 17-19.
- Liu, X. and Erikson, R.L. 2003. Proc. Natl. Acad. Sci. USA **100**: 5789-5794.
- Li, B., et al. 1996. J. Biol. Chem. **271**: 19402-19408.
- Ono, Y., et al. 1989. Proc. Natl. Acad. Sci. USA **86**: 3099-3103.
- Rao, P.V., et al. 2001. Vis. Sci. **42**: 1029-1037.
- Adnane, J., et al. 1991. Oncogene **6**: 659-663.
- Preston, R.A., et al. 1994. Nat. Genet. **7**: 149-153.
- Collins, T.L., et al. 1992. J. Immunol. **148**: 2159-2162.
- Comoglio, P.M. and Trusolino, L. 2002. J. Clin. Invest. **109**: 857-862.
- Tokiwa, G., et al. 1996. Science **273**: 792-794.
- Lev, S., et al. 1995. Nature **376**: 737-745.
- Summy, J.M. and Gallick, G.E. 2003. Cancer Metastasis Rev. **22**: 337-358.
- Lozeman, F.J. et al. 1990. Biochemistry **29**: 8436-8447.
- Elchebly, M., et al. 1999. Science **283**: 1544-1548.
- Tiganis, T., et al. 1998. Mol. Cell Biol. **18**: 1622-1634.
- Galic, S., et al. 2003. Mol. Cell Biol. **23**: 2096-2108.

Phospho-Specific Antibodies

Code No.	Products	Clone	Isotype	Size	Applications	Species
AT-6020	Anti-Phospho-4E-BP1 [Thr46]	polyclonal	rab IgG	100 µL	WB	H, M
JM-3270-100	Anti-Phospho-AFX [Ser193]	polyclonal	rab Ig	100 µg	WB	H
JM-3257-100	Anti-Phospho-Akt [Ser473]	polyclonal	rab Ig	100 µg	WB, IP	H, M, R
AT-7126	Anti-Phospho-Akt/PKB [Ser473]	14-6	rab IgG	10 blot	WB, IC	H, M
AT-7121	Anti-Phospho-Akt/PKB [Thr308]	polyclonal	rab IgG	10 blot	WB	H, M
CY-M1025	Anti-Phospho-AKTide-2T [Thr376]	AT-3E2	mo IgG1	100 µg	E	H
AT-7087	Anti-Phospho-AMPA α 1/2 [Thr172]	polyclonal	rab IgG	10 blot	WB	H, M, R
AT-5014	Anti-Phospho-APP [Thr668]	polyclonal	rab IgG	2 blot	WB	H
AT-7079	Anti-Phospho-AS160 [Thr642]	polyclonal	rab IgG	10 blot	WB	M, H, R
JM-3359-100	Anti-Phospho-ATF-2 [Thr69/Thr71]	polyclonal	rab Ig	100 µg	WB, IP, IH	H, M, R
BV-3269-3	Anti-Phospho-Bad [Ser112]	polyclonal	rab Ig	100 µg	WB, IP	H, M, R
AT-1011	Anti-Phospho-Bad [Ser112]	polyclonal	rab IgG	10 blot	WB	H, M, R
AT-1020	Anti-Phospho-Bad [Ser128]	polyclonal	rab IgG	100 µg	WB	H
AT-1012	Anti-Phospho-Bad [Ser136]	polyclonal	rab IgG	10 blot	WB	H, M, R
JM-3381-100	Anti-Phospho- β -Catenin [Ser45]	polyclonal	rab Ig	100 µg	WB	H, M, R
AT-1018	Anti-Phospho-Bcl-xL [Ser62]	polyclonal	rab IgG	10 blot	WB	H, M, R
AT-4001	Anti-Phospho- β -Arrestin-1 [Ser412]	polyclonal	rab IgG	10 blot	WB	M, R
AT-2034	Anti-Phospho- β -Catenin [Ser45]	polyclonal	rab IgG	10 blot	WB	H
AT-1019	Anti-Phospho-BimEL [Ser69] human / [Ser65] Rat	polyclonal	rab IgG	10 blot	WB	H, R

WB: Western blotting, IPP: Immunoprecipitation, IC: Immunocytochemistry, IH: Immunohistochemistry, ELISA: Enzyme-linked Immunosorbent Assay, IF: Immunofluorescence
B: Bovine, C: Chicken, D: Dog, H: Human, Hm: Hamster, M or mo: Mouse, P: Porcine, R: Rat, Rb or rab: Rabbit, X: Xenopus, (-): tested and Negative

For research use only

Code No.	Products	Clone	Isotype	Size	Applications	Species
AT-7045	Anti-Phospho-BLNK (B Cell Linker Protein) [Tyr84]	polyclonal	rab IgG	10 blot	WB	H, M
JM-3674-100	Anti-Phospho-BRCA1	polyclonal	rab Ig	100 µg	WB	H, M, R
AT-7048	Anti-Phospho-c-Abl [Tyr245]	polyclonal	rab IgG	10 blot	WB	H
AT-7049	Anti-Phospho-c-Abl [Tyr412]	polyclonal	rab IgG	10 blot	WB	H
JM-3384-100	Anti-Phospho-CaMKII [Thr286]	polyclonal	rab Ig	100 µg	WB	H, M, R
AT-7138	Anti-Phospho-CaMKIIα [Thr286]	polyclonal	rab IgG	10 blot	WB	R
CY-M1018	Anti-Phospho-Cdc25C [Ser216]	TK-1F1	mo IgG1	100 µg	WB, E	H
CY-M1021	Anti-Phospho-Cdc7 [Thr376]	TK-3H7	mo IgG2b	100 µg	WB, E, IF	H
AT-6029	Anti-Phospho-cdk1 [Thr14/Tyr15]	polyclonal	rab IgG	10 blot	WB, IP	H, M, R
AT-7095	Anti-Phospho-c-Fos [Thr232]	polyclonal	rab IgG	10 blot	WB	H
AT-7096	Anti-Phospho-c-Fos [Thr325]	polyclonal	rab IgG	10 blot	WB	H, M
JM-3713-100	Anti-Phospho-c-Jun [Ser63/73]	polyclonal	rab IgG	100 µg	WB, IH (FS)	H, M, R
JM-3502-100	Anti-Phospho-c-Jun [Ser73]	polyclonal	rab Ig	100 µg	WB, IH	H, M, R
AT-7097	Anti-Phospho-c-Jun [Ser73]	polyclonal	rab IgG	100 µL	WB	M
AT-7083	Anti-Phospho-CK2β [Ser209]	polyclonal	rab IgG	10 blot	WB	H
AT-2013	Anti-Phospho-c-Kit [Tyr703]	polyclonal	rab IgG	10 blot	WB	H
AT-2014	Anti-Phospho-c-Kit [Tyr721]	polyclonal	rab IgG	100 µL	WB	H
AT-2015	Anti-Phospho-c-Kit [Tyr730]	polyclonal	rab IgG	100 µL	WB	H
AT-2016	Anti-Phospho-c-Kit [Tyr936]	polyclonal	rab IgG	10 blot	WB	H
AT-7157	Anti-Phospho-c-Met [Tyr1230/Tyr1234/Tyr1235]	polyclonal	rab IgG	10 blot	WB	H, M
AT-7156	Anti-Phospho-c-Met [Tyr1003]	polyclonal	rab IgG	10 blot	WB	H
AT-7062	Anti-Phospho-c-Met [Tyr1349]	polyclonal	rab IgG	10 blot	WB	H
AT-7063	Anti-Phospho-c-Met [Tyr1365]	polyclonal	rab IgG	10 blot	WB	H
JM-3501-100	Anti-Phospho-c-Myc [Thr58/Ser62]	polyclonal	rab Ig	100 µg	WB, IP, IH	H, M, R
AT-7080	Anti-Phospho-Cofilin [Ser3]	polyclonal	rab IgG	10 blot	WB	H, D
AT-7155	Anti-Phospho-Cortactin [Tyr421]	polyclonal	rab IgG	100 µL	WB	M
AT-7061	Anti-Phospho-Cortactin [Tyr466]	polyclonal	rab IgG	10 blot	WB	M
CY-M1024	Anti-Phospho-CPI-17 [Thr38]	AK-1F11	mo IgG1	100 µg	WB, E	H, M, R
AT-7113	Anti-Phospho-c-Raf [Ser338/Tyr340]	polyclonal	rab IgG	10 blot	WB	H
AT-7114	Anti-Phospho-c-Raf [Tyr340/Tyr341]	polyclonal	rab IgG	10 blot	IH, WB	H, M, R
AT-7057	Anti-Phospho-c-Raf [Ser259]	polyclonal	rab IgG	10 blot	WB	H
AT-7112	Anti-Phospho-c-Raf [Ser621]	polyclonal	rab IgG	100 µL	WB	H
AT-7098	Anti-Phospho-CREB [Ser129/Ser133]	polyclonal	rab IgG	10 blot	WB	H, M
AT-7050	Anti-Phospho-c-Ret [Ser696]	polyclonal	rab IgG	100 µL	WB	H
AT-5029	Anti-Phospho-Dab1 [Ser491]	polyclonal	rab IgG	10 blot	WB	M
AT-5028	Anti-Phospho-Dab1 [Tyr198]	polyclonal	rab IgG	100 µL	WB	M
AT-5013	Anti-Phospho-Dab1 [Tyr220]	polyclonal	rab IgG	10 blot	WB	M
JM-3651-100	Anti-Phospho-DARPP-32 [Thr75]	polyclonal	rab Ig	100 µL	WB	H, M, R
AT-7147	Anti-Phospho-EGFR [Tyr1068]	polyclonal	rab IgG	100 µL	WB	H, R
AT-7148	Anti-Phospho-EGFR [Tyr1148]	polyclonal	rab IgG	100 µL	WB	H
AT-7149	Anti-Phospho-EGFR [Tyr1173]	polyclonal	rab IgG	100 µL	WB, IH	H, M, R
AT-7146	Anti-Phospho-EGFR [Tyr845]	polyclonal	rab IgG	100 µL	WB, IH	H, M, R
AT-6031	Anti-Phospho-eIF2α [Ser52]	polyclonal	rab IgG	100 µL	WB	H, M, yt
AT-6023	Anti-Phospho-eIF2Bε [Ser539]	polyclonal	rab IgG	100 µL	WB	H, R
AT-6022	Anti-Phospho-eIF4E [Ser209]	polyclonal	rab IgG	100 µL	WB	H
JM-3388-100	Anti-Phospho-Elk-1 [Ser383]	polyclonal	rab Ig	100 µg	WB	H, M, R
AT-7093	Anti-Phospho-Elk-1 [Ser383]	polyclonal	rab IgG	100 µL	WB	H, M
AT-7064	Anti-Phospho-ErbB-2 [Tyr1248]	polyclonal	rab IgG	10 blot	WB	H
JM-3441-100	Anti-Phospho-Erk1/2 [Thr202,Tyr204 Erk1/Thr183,Tyr185 Erk2]	polyclonal	rab Ig	100 µg	WB, IP, IH	H, M, R
AT-7017	Anti-Phospho ERK1/2	104P20	mo IgG1κ	50 µg	WB, E	H, M, R
AT-7139	Anti-Phospho-ERK1/2 [Thr202/185, Tyr204/187]	polyclonal	rab IgG	10 blot	IH, WB	H, M, R, others
AT-7123	Anti-Phospho-ERK5/BMK1 [Tyr218/Tyr220]	polyclonal	rab IgG	100 µL	WB, IH	H
AT-6016	Anti-Phospho-ETS1 [Ser251]	polyclonal	rab IgG	10 blot	WB	C, R
AT-6018	Anti-Phospho-ETS1 [Ser282/Ser285]	polyclonal	rab IgG	10 blot	WB	H, R
AT-6017	Anti-Phospho-ETS1 [Ser282]	polyclonal	rab IgG	10 blot	WB	H, C, M, R
AT-6015	Anti-Phospho-ETS1 [Thr38]	polyclonal	rab IgG	10 blot	WB	C, X, M, R, Rb
JM-3400-100	Anti-Phospho-FAK [Tyr397]	polyclonal	rab Ig	100 µg	WB, IF	H, M, R
AT-7177	Anti-Phospho-FAK [Ser722]	polyclonal	rab IgG	100 µL	WB	H
AT-7119	Anti-Phospho-FAK [Ser732]	polyclonal	rab IgG	100 µL	WB	M
AT-7128	Anti-Phospho-FAK [Tyr397]	141-9	rab IgG	10 blot	WB, IC	H
AT-7127	Anti-Phospho-FAK [Tyr397]	polyclonal	rab IgG	100 µL	IH, WB	H, M, C, X, dm
AT-7133	Anti-Phospho-FAK [Tyr407]	polyclonal	rab IgG	100 µL	WB, IC, IH	H, M, R, C
AT-7134	Anti-Phospho-FAK [Tyr576]	polyclonal	rab IgG	100 µL	WB	H, M, R, C, X
AT-7124	Anti-Phospho-FAK [Tyr577]	polyclonal	rab IgG	100 µL	WB	H, M, C, X
AT-7129	Anti-Phospho-FAK [Tyr861]	polyclonal	rab IgG	100 µL	WB, IH	H, M, C
AT-2031	Anti-Phospho-FGFR1 [Tyr653/Tyr654]	polyclonal	rab IgG	10 blot	WB, IF	H, M, R
AT-8054	Anti-Phospho-Filamin 2 [Ser2113]	polyclonal	rab IgG	10 blot	WB	H, M
AT-7085	Anti-Phospho-FLT3 [Tyr955]	polyclonal	rab IgG	10 blot	WB	H
AT-7086	Anti-Phospho-FLT3 [Tyr969]	polyclonal	rab IgG	200 µL	WB	H
AT-6024	Anti-Phospho-Gab1 [Tyr627]	polyclonal	rab IgG	100 µL	WB	M
AT-7067	Anti-Phospho-GATA4 [Ser105]	polyclonal	rab IgG	10 blot	WB	M

WB: Western blotting, IPP: Immunoprecipitation, IC: Immunocytochemistry, IH: Immunohistochemistry, ELISA: Enzyme-linked Immunosorbent Assay, IF: Immunofluorescence
B: Bovine, C: Chicken, D: Dog, H: Human, Hm: Hamster, M or mo: Mouse, P: Porcine, R: Rat, Rb or rab: Rabbit, X: Xenopus, (-): tested and Negative

For research use only

Code No.	Products	Clone	Isotype	Size	Applications	Species
D098-3	Anti-Phospho-GFAP [Thr7]	TMG7	rat IgG2a	100 µg	WB, IC	H
MY-01-3	Anti-Phospho-GFAP [Ser8]	YC10	mo IgG1	50 µg	WB, IC	H, B, Pg, M(-) R(-)
D121-3	Anti-Phospho-GFAP [Ser13]	KT13	mo IgG1	100 µg	WB, IC	H
AT-3078	Anti-Phospho-Glycogen Synthase[Ser641/Ser645]	polyclonal	rab IgG	10 blot	WB	H, M
AT-7044	Anti-Phospho-GRK2 [Ser670]	polyclonal	rab IgG	10 blot	WB	M, R
JM-3516-100	Anti-Phospho-GSK-3α [Ser21GSK3α, Ser9GSK-3β]	polyclonal	rab Ig	100 µg	WB, IH	H, M, R
AT-7122	Anti-Phospho-GSK-3α [Tyr279] /β[Tyr216]	polyclonal	rab IgG	100 µL	WB, E, DB	H, M, R
JM-3495-100	Anti-Phospho-GSK-3β [Ser9]	polyclonal	rab Ig	100 µg	WB, IH	H, M, R
AT-7120	Anti-Phospho-GSK-3β [Ser9]	polyclonal	rab IgG	100 µL	WB, E, DB	H, M, R
AT-7065	Anti-Phospho-Hck [Tyr209/Ser211]	polyclonal	rab IgG	10 blot	WB	R, (M)
CY-P1015	Anti-Phospho-Histone H2A.X [Ser 139]	polyclonal	rab IgG	25 µg	WB, IF	
PM006	Anti-Phospho Histone H3[Ser28]	polyclonal	rab Ig	50 µg	WB, IC	H
AT-8004	Anti-Phospho-HSP25 [Ser86]	polyclonal	rab IgG	100 µL	WB	M
AT-8003	Anti-Phospho-HSP27 [Ser82]	polyclonal	rab IgG	100 µL	WB	H
AT-7145	Anti-Phospho-IκBα [Ser32/Ser36]	polyclonal	rab IgG	10 blot	WB	H
AT-7058	Anti-Phospho-IKKα [Ser176/Ser180]	polyclonal	rab IgG	10 blot	WB	H
AT-7088	Anti-Phospho-Inhibitor-2 [Thr72]	polyclonal	rab IgG	10 blot	WB, IC	H
AT-2004	Anti-Phospho-Insulin Receptor [Tyr972]	polyclonal	rab IgG	100 µL	WB	H, M
AT-2002	Anti-Phospho-Integrin α4 [Ser988]	polyclonal	rab IgG	10 blot	WB, IP	H
AT-2005	Anti-Phospho-Integrin β1 [Ser785]	polyclonal	rab IgG	100 µL	WB	M, C
AT-2006	Anti-Phospho-Integrin β3 [Tyr773]	polyclonal	rab IgG	100 µL	WB	H
AT-2003	Anti-Phospho-Integrin β3 [Tyr785]	polyclonal	rab IgG	10 blot	WB	H
AT-2038	Anti-Phospho-IR/IGF1R [Tyr1162/Tyr1163]	polyclonal	rab IgG	100 µL	WB, IH	H
AT-2039	Anti-Phospho-IR/IGF1R [Tyr1158/Tyr1162/Tyr1163]	polyclonal	rab IgG	100 µL	WB	H, M
AT-2037	Anti-Phospho-IR/IGF1R [Tyr1158]	polyclonal	rab IgG	100 µL	WB, IH	H
AT-7150	Anti-Phospho-IRS-1 [Ser312]	polyclonal	rab IgG	100 µL	WB	H
AT-7059	Anti-Phospho-IRS-1 [Tyr1229]	polyclonal	rab IgG	10 blot	WB	H
AT-7151	Anti-Phospho-IRS-1 [Tyr612]	polyclonal	rab IgG	100 µL	WB	H
AT-7152	Anti-Phospho-IRS-1 [Tyr896]	polyclonal	rab IgG	100 µL	WB	H
AT-7104	Anti-Phospho-JAK1 [Tyr1022/Tyr1023]	polyclonal	rab IgG	100 µL	WB	H, M
AT-7105	Anti-Phospho-JAK2 [Tyr1007/Tyr1008]	polyclonal	rab IgG	100 µL	WB	H, M, R
JM-3478-100	Anti-Phospho-JKK/SEK1/MKK4	polyclonal	rab Ig	100 µg	WB	H, M, R
AT-7140	Anti-Phospho-JNK/SAPK [Thr183/Tyr185]	polyclonal	rab IgG	10 blot	WB, IH	H, M, R
JM-3589-100	Anti-Phospho-JNK/SAPK [Thr183/Tyr185]	polyclonal	rab IgG	100 µg	WB, IP, IH	H, M, R
AT-7046	Anti-Phospho-LAT [Tyr132]	polyclonal	rab IgG	10 blot	WB	H
AT-7047	Anti-Phospho-LAT [Tyr191]	polyclonal	rab IgG	10 blot	WB	H
CY-M1020	Anti-Phospho-Lats2 [Ser83]	ST-3B11	mo IgG1	100 µg	WB, E	H
JM-3499-100	Anti-Phospho-Lck [Tyr505]	polyclonal	rab Ig	100 µg	WB, IP, IH	H
AT-7060	Anti-Phospho-Lck [Ser158]	polyclonal	rab IgG	10 blot	WB	H
AT-7153	Anti-Phospho-Lck [Tyr192]	polyclonal	rab IgG	100 µL	WB	H
AT-7154	Anti-Phospho-Lck [Tyr505]	polyclonal	rab IgG	100 µL	WB	H
AT-7081	Anti-Phospho-LIMK1/2 [Thr507/Tyr508]	polyclonal	rab IgG	10 blot	WB	H
JM-3595-100	Anti-Phospholipid Transfer Protein (PLTP)	polyclonal	rab IgG	100 µL	WB, IH	H, M
CY-M1019	Anti-Phospho-LSP1 [Ser204]	AT-1E6	mo IgG1	100 µg	WB, E	H, M, R
JM-3434-100	Anti-Phospho-MAPKAPK-2 [Thr334]	polyclonal	rab Ig	100 µg	WB	H
AT-7115	Anti-Phospho-MAPKAPK-2 [Thr334]	polyclonal	rab IgG	10 blot	WB	H, M
JM-3650-100	Anti-Phospho-MARCKS [Ser152/156]	polyclonal	rab Ig	100 µL	WB	H, M, R
CY-M1011	Anti-Phospho-MBS/MYPT1 [Thr 696]	AF20	mo IgG1	100 µg	WB, E	H, M, R, C
AT-7108	Anti-Phospho-MEK1 [Ser298]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-7107	Anti-Phospho-MEK1 [Thr292]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-7109	Anti-Phospho-MEK1 [Thr386]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-7051	Anti-Phospho-MEK1/2 [Ser222]	polyclonal	rab IgG	10 blot	WB	H, M, R
JM-3519-100	Anti-Phospho-Mek1/2	polyclonal	rab Ig	100 µL	WB	H, M, R
AT-7106	Anti-Phospho-MEK1[Ser218/Ser222]/MEK2 [Ser222/Ser226]	polyclonal	rab IgG	10 blot	WB	H, M
AT-7110	Anti-Phospho-MEK2 [Thr394]	polyclonal	rab IgG	100 µL	WB	H
AT-7111	Anti-Phospho-MEK2 [Thr394]	polyclonal	rab IgG	100 µL	WB	M, R
AT-7052	Anti-Phospho-MEK3/6 [Ser189/Thr193]/[Ser207/Thr211]	polyclonal	rab IgG	10 blot	WB	H
AT-7053	Anti-Phospho-MEK4 [Ser257/Thr261]	polyclonal	rab IgG	10 blot	WB	H
AT-7054	Anti-Phospho-MEK7 [Ser271/Thr275]	polyclonal	rab IgG	10 blot	WB	H
JM-3431-100	Anti-Phospho-MLK3 [Thr277/Ser281]	polyclonal	rab Ig	100 µg	WB	H, M
AT-7066	Anti-Phospho-MLK3 [Thr277/Ser281]	polyclonal	rab IgG	10 blot	WB	H
JM-3278-100	Anti-Phospho-MSK1 [Thr581]	polyclonal	rab Ig	100 µg	WB	H, M
AT-6019	Anti-Phospho-mTOR/FRAP [Ser2448]	polyclonal	rab IgG	10 blot	WB, IF	H, M
AT-7082	Anti-Phospho-Myosin Light Chain Kinase [Ser1760]	polyclonal	rab IgG	10 blot	WB	Rb, B, M
AT-6014	Anti-Phospho-NFAT1 [Ser54]	polyclonal	rab IgG	10 blot	WB	M
AT-6030	Anti-Phospho-NFκB [Ser529]	polyclonal	rab IgG	10 blot	WB	H
D183-3	Anti-Phospho-Nudel	N219TP	mo IgG1	100 µg	WB, IC, IH	H, M
JM-3438-100	Anti-Phospho-p38 MAPK [Thr180/Tyr182]	polyclonal	rab Ig	100 µg	WB, IP, IH	H, M, R
AT-7141	Anti-Phospho-p38 [Thr180/Tyr182]	polyclonal	rab IgG	10 blot	WB, IH	H, R
JM-3515-100	Anti-Phospho-p53 [Ser15]	polyclonal	rab Ig	100 µg	WB, IP, IH	H, M, R
CY-M1022	Anti-Phospho-p53 [Ser46]	TK-4D4	mo IgG1	100 µg	WB, E	H

WB: Western blotting, IPP: Immunoprecipitation, IC: Immunocytochemistry, IH: Immunohistochemistry, ELISA: Enzyme-linked Immunosorbent Assay, IF: Immunofluorescence
B: Bovine, C: Chicken, D: Dog, H: Human, Hm: Hamster, M or mo: Mouse, P: Porcine, R: Rat, Rb or rab: Rabbit, X: Xenopus, (-): tested and Negative

Code No.	Products	Clone	Isotype	Size	Applications	Species
K0059-3	Anti-Phospho-p53 [Ser315]	FPS315	mo IgG1	100 µg	WB	H
K0060-3	Anti-Phospho-p53 [Ser392]	FPS392	mo IgG1	100 µg	WB, IH	H
AT-6028	Anti-Phospho-p53 [Ser392]	polyclonal	rab IgG	100 µL	WB, IC	H
AT-7158	Anti-Phospho-p70S6K [Thr229]	polyclonal	rab IgG	100 µL	WB	H
AT-7159	Anti-Phospho-p70S6K [Thr389]	polyclonal	rab IgG	10 blot	WB	H, M
AT-7143	Anti-Phospho-PAG3 [Tyr724]	polyclonal	rab IgG	100 µL	WB	H
AT-7144	Anti-Phospho-PAG3 [Tyr763]	polyclonal	rab IgG	100 µL	WB	H
AT-7166	Anti-Phospho-PAK1/2/3 [Ser141]	polyclonal	rab IgG	100 µL	WB, IC	H, M, R, B, D, Rb, X
AT-7167	Anti-Phospho-PAK1/2/3 [Thr423]	polyclonal	rab IgG	100 µL	WB	H, M, R, B, D, Rb, others
AT-2026	Anti-Phospho-Paxillin [Ser126]	polyclonal	rab IgG	10 blot	WB	M, H, C
AT-2027	Anti-Phospho-Paxillin [Ser178]	polyclonal	rab IgG	10 blot	WB	H
AT-2036	Anti-Phospho-Paxillin [Tyr118]	polyclonal	rab IgG	100 µL	WB, IC	H, M
AT-2035	Anti-Phospho-Paxillin [Tyr31]	polyclonal	rab IgG	100 µL	WB, IH	M
AT-2018	Anti-Phospho-PDGFRα [Tyr572/Tyr574]/β [Tyr579/Tyr581]	polyclonal	rab IgG	10 blot	WB	M
AT-2019	Anti-Phospho-PDGFRα [Tyr742]	polyclonal	rab IgG	10 blot	WB	M
AT-2020	Anti-Phospho-PDGFRα [Tyr754]	polyclonal	rab IgG	10 blot	WB	M
AT-2021	Anti-Phospho-PDGFRα [Tyr762]	polyclonal	rab IgG	10 blot	WB	M
AT-2025	Anti-Phospho-PDGFRα [Tyr849]/β [Tyr857]	polyclonal	rab IgG	100 µL	WB	M, hm, R, C
AT-1021	Anti-Phospho-PED/PEA-15 [Ser116]	polyclonal	rab IgG	10 blot	WB	H, M
AT-7078	Anti-Phospho-PKA Catalytic α/β [Thr197]	polyclonal	rab IgG	10 blot	WB	M
AT-7175	Anti-Phospho-PKA Catalytic β [Ser338]	polyclonal	rab IgG	100 µL	WB	M
AT-7176	Anti-Phospho-PKA RegII β [Ser114]	polyclonal	rab IgG	100 µL	WB	M
JM-3451-100	Anti-Phospho-PKC [Ser660]	polyclonal	rab Ig	100 µg	WB	H, M, R
AT-7071	Anti-Phospho-PKCα [Thr638]	polyclonal	rab IgG	10 blot	WB	H, M
AT-7168	Anti-Phospho-PKCβ I&II [Thr500]	polyclonal	rab IgG	10 blot	WB	H
AT-7171	Anti-Phospho-PKCβ II [Thr641]	polyclonal	rab IgG	100 µL	WB	H
AT-7170	Anti-Phospho-PKCβ I [Thr642]	polyclonal	rab IgG	100 µL	WB	H
AT-7073	Anti-Phospho-PKCδ [Ser645]	polyclonal	rab IgG	10 blot	WB	H
AT-7173	Anti-Phospho-PKCδ [Ser664]	polyclonal	rab IgG	100 µL	WB	H, R
AT-7068	Anti-Phospho-PKCδ [Tyr311]	polyclonal	rab IgG	10 blot	WB	M, R
AT-7174	Anti-Phospho-PKCε [Ser729]	polyclonal	rab IgG	10 blot	WB	H, M
AT-7076	Anti-Phospho-PKCη [Ser674]	polyclonal	rab IgG	10 blot	WB	H
AT-7074	Anti-Phospho-PKCη [Thr655]	polyclonal	rab IgG	10 blot	WB	H
AT-7069	Anti-Phospho-PKCγ [Thr514]	polyclonal	rab IgG	10 blot	WB	H
AT-7072	Anti-Phospho-PKCγ [Thr655]	polyclonal	rab IgG	10 blot	WB	H
AT-7172	Anti-Phospho-PKCλ [Thr555]/PKCλ [Thr563]	polyclonal	rab IgG	100 µL	WB	H, M
AT-7075	Anti-Phospho-PKCθ [Ser676]	polyclonal	rab IgG	10 blot	WB	H
AT-7077	Anti-Phospho-PKCθ [Ser695]	polyclonal	rab IgG	10 blot	WB	H
AT-7070	Anti-Phospho-PKCθ [Thr538]	polyclonal	rab IgG	10 blot	WB	H
AT-7169	Anti-Phospho-PKCη /PKD [Ser742]	polyclonal	rab IgG	100 µL	WB	H, M
AT-7137	Anti-Phospho-PKR [Thr451]	polyclonal	rab IgG	100 µL	WB, IH	H, M
AT-7142	Anti-Phospho-PLCγ-1 [Tyr783]	polyclonal	rab IgG	100 µL	WB, IH	H, M
AT-7084	Anti-Phospho-PRAS40 [Thr246]	polyclonal	rab IgG	100 µL	WB, IC, IH	H, M
CY-M1012	Anti-Phospho-pRB [Ser612]	4E4	mo IgG2a	100 µg	WB, IP, E	H
CY-M1013	Anti-Phospho-pRB [Ser612]	2C11	mo IgG2a	100 µg	WB, IP, E	H
CY-M1015	Anti-Phospho-pRB [Ser807]	5H12	mo IgG1	100 µg	WB, IP, E	H
CY-M1014	Anti-Phospho-pRB [Thr356]	4E3	mo IgG1	100 µg	WB, IP, E	H
AT-7132	Anti-Phospho-Pyk2 [Tyr579/Tyr580]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-7130	Anti-Phospho-Pyk2 [Tyr579]	polyclonal	rab IgG	100 µL	WB, IC	H, M, R
AT-7125	Anti-Phospho-Pyk2/CAKb/FAK2 [Tyr402]	polyclonal	rab IgG	100 µL	WB, IH	H, R, C
AT-7131	Anti-Phospho-Pyk2/CAKb/FAK2 [Tyr580]	polyclonal	rab IgG	100 µL	WB, IH	H
AT-7089	Anti-Phospho-Rac1/cdc42 [Ser71]	polyclonal	rab IgG	100 µL	WB	H
JM-3504-100	Anti-Phospho-Raf [Ser259]	polyclonal	rab Ig	100 µg	WB, IH	H, M, R
M045-3	Anti-phospho-RB [Ser780]	2C4	mo IgG1	100 µg	WB	H, M(-)
555	Anti-Phospho-RB [Ser780], Human	polyclonal	rab IgG	100 µg	WB	H, M, R, D, C
AT-6027	Anti-Phospho-Rb [Ser249/Thr252]	polyclonal	rab IgG	100 µL	WB	H
AT-6013	Anti-Phospho-Rb [Ser807/Ser811]	polyclonal	rab IgG	10 blot	WB	H
AT-6008	Anti-Phospho-Rb [Ser612]	polyclonal	rab IgG	10 blot	WB	H
AT-6009	Anti-Phospho-Rb [Ser780]	polyclonal	rab IgG	10 blot	WB	H
AT-6012	Anti-Phospho-Rb [Ser807]	polyclonal	rab IgG	10 blot	WB	H
AT-6025	Anti-Phospho-Rb [Ser811]	polyclonal	rab IgG	100 µL	WB	H
AT-6011	Anti-Phospho-Rb [Thr356]	polyclonal	rab IgG	10 blot	WB	H
AT-6026	Anti-Phospho-Rb [Thr821]	polyclonal	rab IgG	100 µL	WB	H
AT-6010	Anti-Phospho-Rb [Thr826]	polyclonal	rab IgG	10 blot	WB	H
AT-7161	Anti-Phospho-Ribosomal Protein S6 [Ser235/Ser236]	polyclonal	rab IgG	100 µL	WB	H
AT-7162	Anti-Phospho-Ribosomal Protein S6 [Ser244/Ser247]	polyclonal	rab IgG	100 µL	WB	H
AT-7160	Anti-Phospho-Ribosomal Protein S6 [Ser236]	polyclonal	rab IgG	100 µL	WB	H
AT-7094	Anti-Phospho-ROCKII [Thr249]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-7163	Anti-Phospho-RSK1 [Ser221]	polyclonal	rab IgG	100 µL	WB	H, M, C
AT-7164	Anti-Phospho-RSK1 [Ser363] /2 [Ser369]	polyclonal	rab IgG	100 µL	WB	H, C
AT-7165	Anti-Phospho-RSK1 [Ser380]	polyclonal	rab IgG	100 µL	WB	H, M, C

WB: Western blotting, IPP: Immunoprecipitation, IC: Immunocytochemistry, IH: Immunohistochemistry, ELISA: Enzyme-linked Immunosorbent Assay, IF: Immunofluorescence
B: Bovine, C: Chicken, D: Dog, H: Human, Hm: Hamster, M or mo: Mouse, P: Porcine, R: Rat, Rb or rab: Rabbit, X: Xenopus, (-): tested and Negative

Phospho-Specific Antibodies

For research use only

Code No.	Products	Clone	Isotype	Size	Applications	Species
CPK-Z-2B9	Anti-Phosphoserine	2B9	mo IgG	100 µg		
JM-3505-100	Anti-Phospho S6 Kinase [Thr389]	polyclonal	rab Ig	100 µg	WB	H, M, R
AT-7117	Anti-Phospho-SHP2 [Ser576]	polyclonal	rab IgG	100 µL	WB	H
AT-7116	Anti-Phospho-SHP2 [Tyr542]	polyclonal	rab IgG	100 µL	WB	M
AT-7118	Anti-Phospho-SHP2 [Tyr580]	polyclonal	rab IgG	100 µL	WB	M
AT-6021	Anti-Phospho-Smad3 [Ser423/Ser425]	polyclonal	rab IgG	100 µL	WB	M
AT-7135	Anti-Phospho-Src [Tyr418]	polyclonal	rab IgG	100 µL	WB, IH	H, M, C
AT-7136	Anti-Phospho-Src [Tyr529]	polyclonal	rab IgG	100 µL	WB, IH	H, M, R, C
JM-3467-100	Anti-Phospho-Stat1 [Tyr 701]	polyclonal	rab Ig	100 µg	WB	H M
AT-7099	Anti-Phospho-Stat1 [Tyr701]	polyclonal	rab IgG	100 µL	WB	M, R
AT-7101	Anti-Phospho-Stat1 [Ser727]	polyclonal	rab IgG	100 µL	WB	H, M
JM-3469-100	Anti-Phospho-Stat2 [Tyr689]	polyclonal	rab Ig	100 µg	WB	H, M
D128-3	Anti-phospho-Stat3 [Tyr705]	PS3/1	mo IgG1	100 µg	WB, IC	H, M, R, Ze
AT-7100	Anti-Phospho-Stat3 [Tyr705]	polyclonal	rab IgG	100 µL	WB	H, M, R
JM-3474-100	Anti-Phospho-Stat3 [Ser727]	polyclonal	rab Ig	100 µg	WB, IP, IH	H, M
AT-7102	Anti-Phospho-Stat3 [Ser727]	polyclonal	rab IgG	100 µL	WB	H, M, R
JM-3475-100	Anti-Phospho-Stat5 [Tyr694]	polyclonal	rab Ig	100 µg	WB	H, M
AT-7103	Anti-Phospho-Stat5 [Tyr694]	polyclonal	rab IgG	100 µL	WB	M
JM-3476-100	Anti-Phospho-Stat6 [Tyr641]	polyclonal	rab Ig	100 µg	WB	H, M
AT-7092	Anti-Phospho-Syk [Tyr323] human/[Tyr317] mouse	polyclonal	rab IgG	100 µL	WB	H, M
CY-M1023	Anti-Phospho-Syntide-2	MS-6E6	mo IgG2b	100 µg	E	H
JM-3550-100	Anti-Phospho-Tau [Ser404]	polyclonal	goat Ig	100 µg	WB, IP, IH	H, M, R
AT-5027	Anti-Phospho-Tau [Ser199/Ser202]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-5015	Anti-Phospho-Tau [Ser199]	polyclonal	rab IgG	100 µL	WB, IH, E	H, M, R
AT-5016	Anti-Phospho-Tau [Thr205]	polyclonal	rab IgG	100 µL	WB, IH	H, M, R
AT-5017	Anti-Phospho-Tau [Thr212]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-5018	Anti-Phospho-Tau [Ser214]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-5012	Anti-Phospho-Tau [Thr217]	polyclonal	rab IgG	10 blot	WB	H, M, R
AT-5019	Anti-Phospho-Tau [Thr231]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-5020	Anti-Phospho-Tau [Ser262]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-5021	Anti-Phospho-Tau [Ser356]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-5022	Anti-Phospho-Tau [Ser396]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-5023	Anti-Phospho-Tau [Ser400]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-5024	Anti-Phospho-Tau [Ser404]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-5025	Anti-Phospho-Tau [Ser409]	polyclonal	rab IgG	100 µL	WB	H, M, R
AT-5026	Anti-Phospho-Tau [Ser422]	polyclonal	rab IgG	100 µL	WB	H, M, R
M025-3	Anti-Phospho-topoisomerase IIα [Thr1342]	3D4	mo IgG1	100 µg	WB, IC	H
JM-3503-100	Anti-Phospho-TrkA [Tyr490]	polyclonal	rab Ig	100 µg	WB, IP, IH	H, M, R
MH-11-3	Anti-Phosphotyrosine	6D12	mo IgG1κ	200 µg	WB, IC	all
MH-11-4	Anti-Phosphotyrosine FITC conj.	6D12	mo IgG1κ	100 µL	IC	all
JM-3649-100	Anti-Phospho-Tyrosine Hydroxylase [Ser40]	polyclonal	rab Ig	100 µL	WB, IF, IH	H, M, R
AT-7055	Anti-Phospho-Vav1 [Tyr160]	polyclonal	rab IgG	10 blot	WB	H
AT-7056	Anti-Phospho-Vav3 [Tyr173]	polyclonal	rab IgG	10 blot	WB	M
AT-2032	Anti-Phospho-VE-cadherin [Tyr658]	polyclonal	rab IgG	10 blot	WB	H, M, R, C, others
AT-2033	Anti-Phospho-VE-cadherin [Tyr731]	polyclonal	rab IgG	10 blot	WB	H, Mk
AT-2040	Anti-Phospho-VEGFR2 [Tyr1054/Tyr1059]	polyclonal	rab IgG	100 µL	WB	M
AT-2023	Anti-Phospho-VEGFR2 [Tyr1054]	polyclonal	rab IgG	10 blot	WB	M
AT-2024	Anti-Phospho-VEGFR2 [Tyr1214]	polyclonal	rab IgG	10 blot	WB	H, M
AT-2022	Anti-Phospho-VEGFR2 [Tyr951]	polyclonal	rab IgG	10 blot	WB	H
D096-3	Anti-Phospho-Vimentin [Ser6]	MO6	mo IgG1	100 µg	WB, IC	H
D099-3	Anti-Phospho-Vimentin [Ser33]	YT33	mo IgG1	100 µg	WB, IC	H
D094-3	Anti-Phospho-Vimentin [Ser38]	TM38	rat IgG2a	100 µg	WB, IC	H
D122-3	Anti-Phospho-Vimentin [Ser50]	TM50	rat IgG2a	100 µg	WB, IF	H, M, R
D076-3	Anti-Phospho-Vimentin [Ser55]	4A4	mo IgG2b	100 µg	WB, IC, E	H, M, R
D093-3	Anti-Phospho-Vimentin [Ser71]	TM71	rat IgG2a	100 µg	WB, IC	H, M, R
D095-3	Anti-Phospho-Vimentin [Ser82]	MO82	mo IgG2b	100 µg	WB, IC	H, M, R
AT-2028	Anti-Phospho-Vinculin [Tyr100]	polyclonal	rab IgG	10 blot	WB	H, C
AT-2029	Anti-Phospho-Vinculin [Tyr1065]	polyclonal	rab IgG	10 blot	WB	H, C
AT-2030	Anti-Phospho-Vinculin [Tyr822]	polyclonal	rab IgG	10 blot	WB	C
AT-7090	Anti-Phospho-ZAP-70 [Tyr292]	polyclonal	rab IgG	10 blot	WB	H
AT-7091	Anti-Phospho-ZAP-70 [Tyr315/Tyr319]	polyclonal	rab IgG	10 blot	WB	H

WB: Western blotting, IPP: Immunoprecipitation, IC: Immunocytochemistry, IH: Immunohistochemistry, ELISA: Enzyme-linked Immunosorbent Assay, IF: Immunofluorescence
B: Bovine, C: Chicken, D: Dog, H: Human, Hm: Hamster, M or mo: Mouse, P: Porcine, R: Rat, Rb or rab: Rabbit, X: Xenopus, (-): tested and Negative

039170-7091