

Fatty Acid Oxidation Assay

20% OFF
GEN2614



Highly sensitive colorimetric assay for the quantitative measurement of FAO activity in cells and tissues

Key Features of FAO Assay

Simple | Quantify fatty acid β -oxidation in cells or tissues with our unique substrates

Three Formats | Choose assays targeting short-, medium-, or long-chain fatty acid oxidation

Validated | Tested with cells and tissues including HEK293, macrophages, neutrophils & ocular tissue

Rapid | 120-minute protocol with 3 assay components

Flexible | No special instrument required. Use an absorbance plate reader at 492nm

Cited & Unique | Cited 16 times in high impact journals

Reaction Mechanism

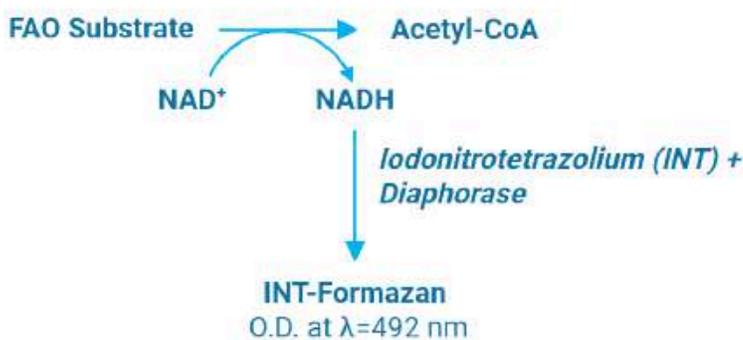


Figure 1. The Assay Genie non-radioactive FAO assay is based on the oxidation of FAO substrate. Generation of NADH is coupled to the reduction of the tetrazolium salt INT to formazan. The intensity of the red-colored formazan is proportional to increased FAO activity.

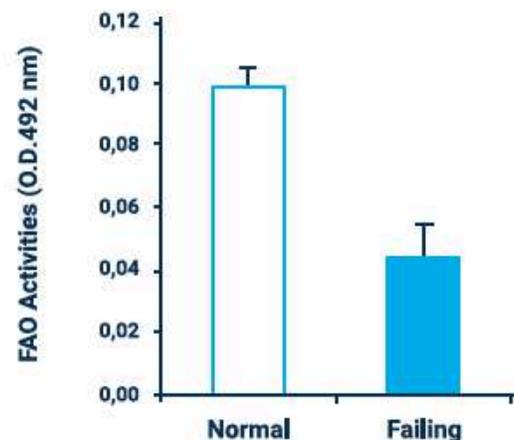


Figure 2. Tissue lysates were prepared from healthy Hamster hearts and the hearts of the T02 Hamster model, which is associated with heart failure. Lysates were used in the assay, and the levels of fatty acid oxidation were quantified.

Publications Highlights – Tissue Samples

Citation | Rajala, A., Teel, K., Bhat, M.A. et al. Insulin-like growth factor 1 receptor mediates photoreceptor neuroprotection. *Cell Death Dis* 13, 613 (2022)

Journal | Nature Communications

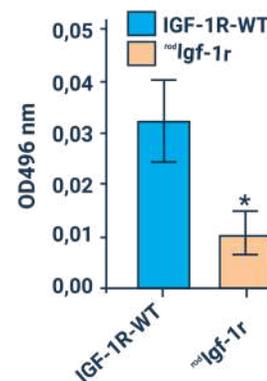


Figure 1. Fatty acid β -oxidation was measured in 2-month-old IGF-1R-WT and rod1gf-1r-/- mouse retinas.

Publications Highlights – Cell Samples

Citation | El-Hachem, N., Leclercq, M., Susaeta Ruiz, M. et al. Valine aminoacyl-tRNA synthetase (VARs) promotes therapy resistance in melanoma. *Nat Cell Biol* 26, 1154–1164 (2024)

Journal | Nature Cell Biology

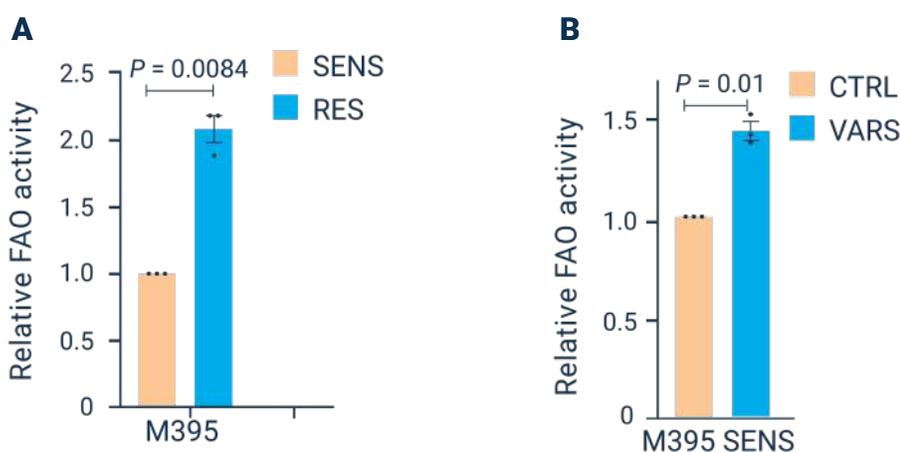


Figure 2. Fatty Acid measurement in Valine aminoacyl-tRNA synthetase (VARs) controls and resistant melanoma cells. A) FAO activity measured in SENS and RES patient-derived cells. B) FAO activity measured in M395 SENS cells and in M395 overexpressing (VARs) or not (control).

Codes	Product Names	Size
BR00001- S	Fatty Acid Oxidation (FAO) Assay Kit - Short Chain	100 Assays
BR00001- M	Fatty Acid Oxidation (FAO) Assay Kit - Medium Chain	100 Assays
BR00001- L	Fatty Acid Oxidation (FAO) Assay Kit - Long Chain	100 Assays

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