

CROT Protein, Human (V474L, sf9, His)

Cat. No.:	HY-P74218
Synonyms:	Peroxisomal carnitine O-octanoyltransferase; CROT; COT
Species:	Human
Source:	Sf9 insect cells
Accession:	Q9UKG9 (M1-L612,V474L)
Gene ID:	54677
Molecular Weight:	Approximately 65 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of 50 mM Tris, 100 mM NaCl, pH 8.0, 10% Glycerol. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The CROT Protein serves a pivotal role in the beta-oxidation of fatty acids, exhibiting the highest enzymatic activity toward substrates with chain lengths ranging from C6 to C10. Functioning as a key player in lipid metabolism, CROT facilitates the conversion of the end product of pristanic acid beta-oxidation, namely 4,8-dimethylnonanoyl-CoA, into its corresponding carnitine ester. This enzymatic process is essential in regulating the balance of fatty acid oxidation, contributing to cellular energy homeostasis. Understanding the specific activities of CROT provides insights into the intricate mechanisms governing fatty acid catabolism, with potential implications for metabolic regulation and energy production. Further investigation into the function of CROT holds promise for advancing our understanding of lipid metabolism and may offer avenues for therapeutic interventions in metabolic disorders.

Caution: Product has not been fully validated for medical applications. For research use only.

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