

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DECR1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human DECR1 Met233-Ser335 Accession # Q16698
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

DECR-1 (2, 4-DiEnol CoA Reductase, mitochondrial) is a 33-36 kDa member of the DECR subfamily, short-chain dehydrogenase/reductase family of molecules. It is a mitochondrial enzyme that is expressed in multiple cell types, particularly those involved in oxidative degradation of fatty acids. Fatty acids provide energy following their degradation by four enzymes that comprise the β -oxidation cycle. The optimal configuration for fatty acids in this cycle is one of saturation. However, many fatty acids that appear before this cycle are unsaturated, and it is necessary to transform them into a suitable configuration for processing. DECR-1 converts a two double-bonded substrate into a one double-bonded substrate, which subsequently undergoes isomerization and entry into the β -oxidation cycle. Human DECR-1 is 335 amino acids (aa) in length. It contains a mitochondrial targeting sequence (aa 1-34), and a 301 aa mature region that possesses one catalytic site (aa 57-302). There are two potential acetylation sites at Lys110 and Lys230. DECR-1 forms homotetramers. One potential isoform variant shows an alternative start site at Met93 coupled to a deletion of aa 292-335. Over aa 233-335, human DECR-1 shares 87% aa sequence identity with mouse DECR-1.

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