

#### DESCRIPTION

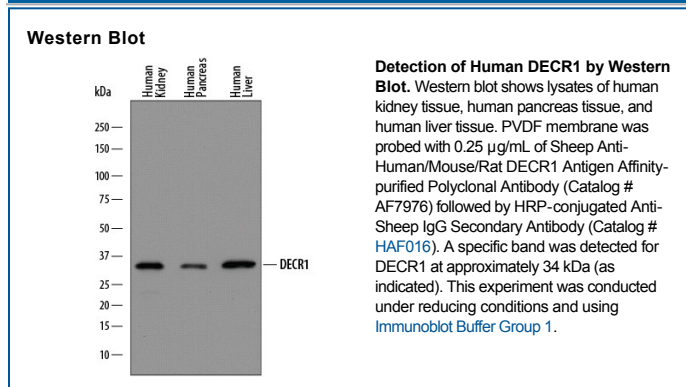
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human DECR1 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human DECR1 Met233-Ser335 Accession # Q16698
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

#### 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.25 µg/mL	See Below

#### DATA



#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### 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.