

### DHRS2 Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51756

### Specification

# DHRS2 Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW WB, E <u>013268</u> Human, Mouse, Rat Rabbit Polyclonal 27 KDa

## DHRS2 Antibody - Additional Information

Gene ID 10202

**Other Names** Dehydrogenase/reductase SDR family member 2, mitochondrial, 111-, Dicarbonyl reductase HEP27, Protein D, DHRS2

**Target/Specificity** KLH-conjugated synthetic peptide encompassing a sequence within the center region of human DHRS2. The exact sequence is proprietary.

Dilution WB~~1:1000 E~~N/A

Format 0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage Store at -20 °C.Stable for 12 months from date of receipt

# **DHRS2 Antibody - Protein Information**

Name DHRS2 (HGNC:18349)

Synonyms SDR25C1

Function

NADPH-dependent oxidoreductase which catalyzes the reduction of dicarbonyl compounds. Displays reductase activity in vitro with 3,4- hexanedione, 2,3-heptanedione and 1-phenyl-1,2-propanedione as substrates (PubMed:<a href="http://www.uniprot.org/citations/16685466" target="\_blank">16685466</a>). May function as a dicarbonyl reductase in the enzymatic inactivation of reactive carbonyls involved in covalent modification of cellular components (PubMed:<a



href="http://www.uniprot.org/citations/16685466" target="\_blank">16685466</a>). Also displays a minor hydroxysteroid dehydrogenase activity toward bile acids such as ursodeoxycholic acid (UDCA) and isoursodeoxycholic acid (isoUDCA), which makes it unlikely to control hormone levels (PubMed:<a href="http://www.uniprot.org/citations/16685466" target="\_blank">16685466</a>). Doesn't show any activity in vitro with retinoids and sugars as substrates (PubMed:<a href="http://www.uniprot.org/citations/16685466" target="\_blank">16685466</a>). Attenuates MDM2-mediated p53/TP53 degradation, leading to p53/TP53 stabilization and increased transcription activity, resulting in the accumulation of MDM2 and CDKN1A/p21 (PubMed:<a href="http://www.uniprot.org/citations/20547751" target="\_blank">20547751</a>). Reduces proliferation, migration and invasion of cancer cells and well as the production of ROS in cancer (PubMed:<a href="http://www.uniprot.org/citations/29106393" target="\_blank">29106393</a>).

#### **Cellular Location**

Mitochondrion matrix. Nucleus. Note=A minor fraction of the protein is translocated from the mitochondria to the nucleus, after cleavage of the targeting signal

#### **Tissue Location**

Widely expressed, with highest levels in liver and kidney, followed by heart, spleen, skeletal muscle and placenta. In hemopoietic cells, expressed in dendritic cells, but not in monocytes, macrophages, granulocytes, nor in B and T lymphocytes

## DHRS2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

DHRS2 Antibody - Images

### DHRS2 Antibody - Background

Displays NADPH-dependent dicarbonyl reductase activity in vitro with 3,4-Hexanedione, 2,3-Heptanedione and 1-Phenyl-1,2- propanedione as substrates. No reductase activity is displayed in vitro with steroids, retinoids and sugars as substrates. Attenuates MDM2-mediated p53/TP53 degradation, leading to p53/TP53 stabilization and increased transcription activity, resulting in the accumulation of MDM2 and CDKN1A/p21.

### DHRS2 Antibody - References

Gabrielli F.,et al.Eur. J. Biochem. 232:473-477(1995). Pellegrini S.,et al.Biochim. Biophys. Acta 1574:215-222(2002). Suzuki Y.,et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases. Heilig R.,et al.Nature 421:601-607(2003). Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.