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DHRS2 Rabbit pAb

Catalog # AP98830

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q13268
Other Accession	Q13268
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	29927
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DHRS2
Epitope Specificity	61-160/258
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the short-chain dehydrogenases/reductases (SDR) family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	DHRS2 is a 258 amino acid protein that localizes to the nucleus and belongs to the short-chain dehydrogenase/reductase (SDR) family. Functioning as an NADPH-dependent dicarbonyl reductase, DHRS2 is thought to inhibit cell replication by either converting cortisone in cortisol, or by catalyzing the oxidation of androgen and estrogen. The gene encoding DHRS2 maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder ?-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

Additional Information

Gene ID	10202
Other Names	HEP27; SDR25C1; 5430405K24Rik; DHRS2_HUMAN; DHRS2; Dicarbonyl reductase HEP27; Protein D; Short chain dehydrogenase/reductase family 25C member 1 (Protein SDR25C1); 1.1.1.-; dehydrogenase/reductase 2; dehydrogenase/reductase (SDR family) member 2; short chain dehydrogenase/reductase family 25C, member 1
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

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:16685466). May function as a dicarbonyl reductase in the enzymatic inactivation of reactive carbonyls involved in covalent modification of cellular components (PubMed:16685466). 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:16685466). Doesn't show any activity in vitro with retinoids and sugars as substrates (PubMed:16685466). 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:20547751). Reduces proliferation, migration and invasion of cancer cells and well as the production of ROS in cancer (PubMed:29106393).
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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.