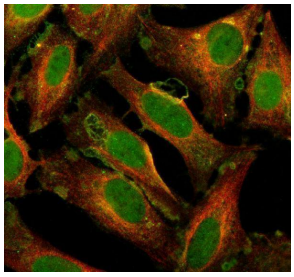
DHRS2 Antibody / Dehydrogenase/reductase 2 Antibody (FY13623)

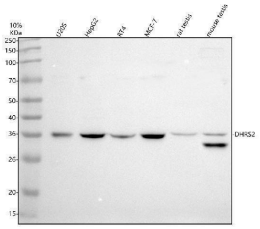
Catalog No.	Formulation	Size
FY13623	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q13268
Applications	Western blot: 0.5-1ug/ml Immunofluorescence: 5ug/ml ELISA: 0.1-0.5 ug/ml
Limitations	This DHRS2 Antibody / Dehydrogenase/reductase 2 Antibody is provided for laboratory research use only.



DHRS2 Antibody by IF in U2OS cells. Immunofluorescence analysis using Dehydrogenase/reductase 2 Antibody shows green staining concentrated in nuclei and parts of the cytoplasm of U2OS cells, with red alpha-tubulin labeling of the cytoskeleton. Cells were incubated with 5 ug/mL primary antibody overnight at 4oC and visualized using fluorophore-conjugated secondary antibodies. The observed nuclear signal is compatible with published descriptions of DHRS2 localization.



DHRS2 Antibody by WB in human cell lines and rodent testis. Western blot analysis using Dehydrogenase/reductase 2 Antibody detects a band near 36 kDa, above the calculated molecular weight of approximately 30 kDa. Samples are human U2OS (lane 1), HepG2 (lane 2), RT4 (lane 3), and MCF-7 (lane 4) whole-cell lysates, rat testis (lane 5), and mouse testis (lane 6). Reduced lysates containing 30 ug total protein per lane were separated by 10% SDS-PAGE and transferred to nitrocellulose. Primary antibody was applied at 0.5 ug/mL overnight at 4oC, followed by HRP-conjugated secondary antibody and chemiluminescent detection.

Description

DHRS2 Antibody / Dehydrogenase/reductase 2 Antibody recognizes DHRS2, also called Hep27, a member of the short-chain dehydrogenase/reductase superfamily. Proteins in this family share a characteristic nucleotide-binding fold and catalyze oxidation-reduction reactions involving diverse small molecules. Their substrates can include carbonyl-containing metabolites, lipids, and other compounds, but shared family membership does not guarantee identical chemistry. DHRS2 has been studied both as an oxidoreductase and as a protein associated with cellular stress and growth-control pathways.

DHRS2 contains sequence motifs typical of short-chain dehydrogenases and reductases, including features involved in cofactor binding and catalysis. The enzyme has been associated with mitochondrial compartments, placing it in an environment where redox reactions are central to metabolic regulation. However, the identity and relative importance of its endogenous substrates remain incompletely resolved. Assigning a specific metabolic pathway to DHRS2 requires direct evidence of substrate conversion in a physiological setting, not merely demonstration that the purified protein can reduce a candidate compound.

The DHRS2 Antibody recognizes an SDR-family protein for which both catalytic activity and reported protein interactions warrant mechanistic investigation. A notable line of investigation concerns the p53 regulatory network. DHRS2 has been reported to interact with MDM2, an E3 ubiquitin ligase that promotes p53 degradation. Experimental work suggests that this interaction may influence p53 abundance and thereby affect pathways involved in cell-cycle arrest or apoptosis. These proposed signaling functions are intriguing because they connect a protein with oxidoreductase features to the control of cellular stress responses. Whether they depend on DHRS2 catalytic activity or on a separate protein-interaction function remains an important mechanistic question.

Changes in DHRS2 expression have also been reported in cancer-related studies, although their interpretation is context dependent. Increased or decreased abundance could reflect altered metabolic requirements, stress signaling, differentiation state, or combinations of these factors. Resolving the relationship between DHRS2 enzymatic activity, intracellular localization, and MDM2-associated effects would clarify whether its metabolic and regulatory roles are mechanistically linked or represent distinct properties of the same protein.

Explore related research targets in our Metabolism Antibody / Metabolism Antibodies collection.

Application Notes

The ideal working dilution for the DHRS2 Antibody / Dehydrogenase/reductase 2 Antibody should be established by the investigator based on assay conditions.

Immunogen

The DHRS2 Antibody was generated using e. coli-derived human DHRS2 recombinant protein (amino acids M1-S248).

Storage

Store the reconstituted DHRS2 Antibody at 4oC for up to one month. For long-term storage, divide into aliquots and keep at -20oC for up to six months. Avoid repeated freeze-thaw cycles.

Alternate Names

DHRS2 antibody, Dehydrogenase/reductase SDR family member 2, mitochondrial antibody, Dehydrogenase/reductase SDR family member 2 antibody, mitochondrial antibody, dehydrogenase/reductase 2 antibody, Dicarbonyl reductase HEP27 antibody, HEP27 antibody, Protein D antibody, SDR25C1 antibody

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