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DHRS7 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4772a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q9Y394
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB25722
Calculated MW	38299
Antigen Region	66-93

Additional Information

Gene ID	51635
Other Names	Dehydrogenase/reductase SDR family member 7, 11--, Retinal short-chain dehydrogenase/reductase 4, retSDR4, DHRS7, DHRS7A, RETSDR4
Target/Specificity	This DHRS7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 66-93 amino acids from the N-terminal region of human DHRS7.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DHRS7 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DHRS7 (HGNC:21524)
Function	NADPH-dependent oxidoreductase which catalyzes the reduction of a variety of compounds bearing carbonyl groups including steroids, retinoids and xenobiotics (PubMed:24246760, PubMed:26466768, PubMed:28457967,

PubMed:28687384). Catalyzes the reduction/inactivation of 5alpha-dihydrotestosterone to 3alpha-androstanediol, with a possible role in the modulation of androgen receptor function (PubMed:28457967, PubMed:28687384). Involved in the reduction of all-trans-retinal to all-trans-retinol (PubMed:26466768). Converts cortisone to 20beta-dihydrocortisone in vitro, although the physiological relevance of this activity is questionable (PubMed:28457967). Reduces exogenous compounds such as quinones (1,2-naphtoquinone, 9,10-phenantrenequinone and benzoquinone) and other xenobiotics (alpha-diketones) in vitro, suggesting a role in the biotransformation of xenobiotics with carbonyl group (PubMed:24246760, PubMed:26466768). A dehydrogenase activity has not been detected so far (PubMed:24246760). May play a role as tumor suppressor (PubMed:26311046).

Cellular Location

Endoplasmic reticulum membrane. Note=Bound to the endoplasmic reticulum membrane, possibly through a N-terminus anchor. The main bulk of the polypeptide chain was first reported to be facing toward the lumen of the endoplasmic reticulum (PubMed:24246760) However, it was later shown to be facing the cytosol (PubMed:28457967)

Tissue Location

Found predominantly in the adrenal glands, liver, thyroid, prostate, small intestine, colon, stomach, kidney and brain (PubMed:26466768). Lower levels observed in skeletal muscle, the lung and the spleen (PubMed:26466768).

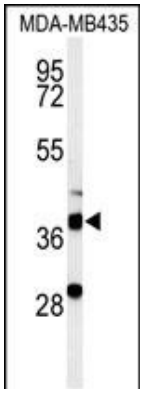
Background

DHRS7 is short-chain dehydrogenases/reductases (SDRs), such as DHRS7, catalyze the oxidation/reduction of a wide range of substrates, including retinoids and steroids.

References

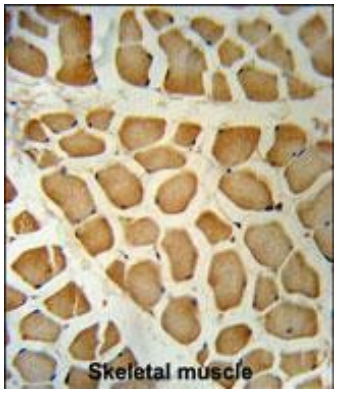
Persson, B., et al. Chem. Biol. Interact. 178 (1-3), 94-98 (2009)
Clark, H.F., et al. Genome Res. 13(10):2265-2270(2003)
Heilig, R., et al. Nature 421(6923):601-607(2003)

Images

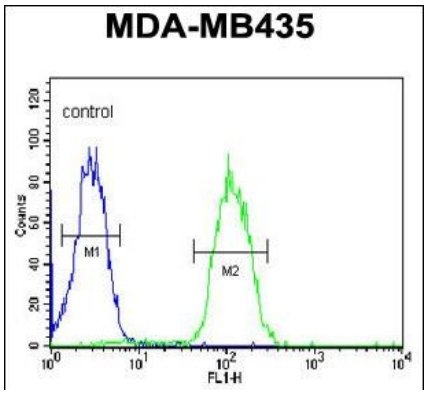


Western blot analysis of DHRS7 Antibody (N-term) (Cat. #AP4772a) in MDA-MB435 cell line lysates (35ug/lane). DHRS7 (arrow) was detected using the purified Pab.

DHRS7 Antibody (N-term) (Cat. #AP4772a) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DHRS7 Antibody (N-term) for immunohistochemistry.



Clinical relevance has not been evaluated.



DHRS7 Antibody (N-term) (Cat. #AP4772a) flow cytometric analysis of MDA-MB435 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.