

## **DHRS7 Antibody (N-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP4772a

## Specification

# DHRS7 Antibody (N-term) - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Calculated MW	FC, WB, IHC-P,E <u>Q9Y394</u> Human Rabbit Polyclonal Rabbit IgG 38299
Calculated MW	38299
Antigen Region	66-93

## **DHRS7 Antibody (N-term) - 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 FC~~1:10~50 WB~~1:1000 IHC-P~~1:50~100 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.

## **DHRS7 Antibody (N-term) - Protein Information**

Name DHRS7 (<u>HGNC:21524</u>)



**Function** NADPH-dependent oxidoreductase which catalyzes the reduction of a variety of compounds bearing carbonyl groups including steroids, retinoids and xenobiotics (PubMed:<u>24246760</u>, PubMed:<u>26466768</u>, PubMed:<u>28457967</u>, PubMed:<u>28687384</u>). Catalyzes the reduction/inactivation of 5alpha-dihydrotestosterone to 3alpha-androstanediol, with a possible role in the modulation of androgen receptor function (PubMed:<u>28457967</u>, PubMed:<u>28687384</u>). Involved in the reduction of all-trans-retinal to all-trans-retinol (PubMed:<u>26466768</u>). Converts cortisone to 20beta- dihydrocortisone in vitro, although the physiological relevance of this activity is questionable (PubMed:<u>28457967</u>). 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:<u>24246760</u>, PubMed:<u>26466768</u>). A dehydrogenase activity has not been detected so far (PubMed:<u>24246760</u>). May play a role as tumor suppressor (PubMed:<u>26311046</u>).

## **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).

# DHRS7 Antibody (N-term) - 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>

## DHRS7 Antibody (N-term) - 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.

## DHRS7 Antibody (N-term) - 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.

## DHRS7 Antibody (N-term) - 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)