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Goat Anti-Dicarbonyl Reductase Antibody

Peptide-affinity purified goat antibody
Catalog # AF1318a

Specification

Goat Anti-Dicarbonyl Reductase Antibody - Product Information

Application	**WB, IHC, E**
Primary Accession	Q7Z4W1
Other Accession	NP_057370, 51181
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**25913**

Goat Anti-Dicarbonyl Reductase Antibody - Additional Information

Gene ID 51181

Other Names
L-xylulose reductase, XR, 1.1.1.10, Carbonyl reductase II, Dicarbonyl/L-xylulose reductase, Kidney dicarbonyl reductase, kiDCR, Short chain dehydrogenase/reductase family 20C member 1, Sperm surface protein P34H, DCXR, SDR20C1

Dilution
WB~~1:1000
IHC~~1:100~500
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-Dicarbonyl Reductase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Dicarbonyl Reductase Antibody - Protein Information

Name DCXR

Synonyms SDR20C1

Function
Catalyzes the NADPH-dependent reduction of several pentoses, tetroses, trioses, alpha-dicarbonyl compounds and L-xylulose. Participates in the uronate cycle of glucose metabolism. May play a role in the water absorption and cellular osmoregulation in the proximal renal tubules by producing xylitol, an osmolyte, thereby preventing osmolytic stress from occurring in the renal tubules.

Cellular Location
Membrane; Peripheral membrane protein. Note=Probably recruited to membranes via an interaction with phosphatidylinositol.

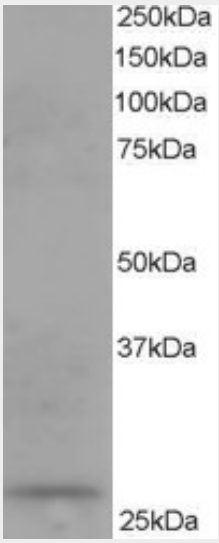
Tissue Location
Highly expressed in kidney, liver and epididymis. In the epididymis, it is mainly expressed in the proximal and distal sections of the corpus region. Weakly or not expressed in brain, lung, heart, spleen and testis.

Goat Anti-Dicarbonyl Reductase Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-Dicarbonyl Reductase Antibody - Images



AF1318a staining (0.1 µg/ml) of human kidney lysate (RIPA buffer, 35 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

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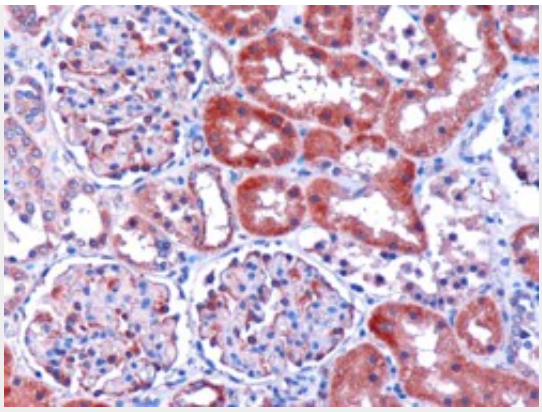

AF1318a (1 µg/ml) staining of paraffin embedded human kidney. Microwaved antigen retrieval with citrate buffer pH 6, HRP-staining.

Goat Anti-Dicarbonyl Reductase Antibody - Background

The protein encoded by this gene acts as a homotetramer to catalyze diacetyl reductase and L-xylulose reductase reactions. The encoded protein may play a role in the uronate cycle of glucose metabolism and in the cellular osmoregulation in the proximal renal tubules. Defects in this gene are a cause of pentosuria. Two transcript variants encoding different isoforms have been found for this gene.

Goat Anti-Dicarbonyl Reductase Antibody - References

Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732.
Structure/function analysis of a critical disulfide bond in the active site of L-xylulose reductase. Zhao HT, et al. Cell Mol Life Sci, 2009 May. PMID 19337691.
The SDR (short-chain dehydrogenase/reductase and related enzymes) nomenclature initiative. Persson B, et al. Chem Biol Interact, 2009 Mar 16. PMID 19027726.
Dicarbonyl/L-xylulose reductase: a potential biomarker identified by laser-capture microdissection-micro serial analysis of gene expression of human prostate adenocarcinoma. Cho-Vega JH, et al. Cancer Epidemiol Biomarkers Prev, 2007 Dec. PMID 18086765.
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