10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-DUSP1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1343a

Specification

Goat Anti-DUSP1 Antibody - Product Information

Application	**IHC, WB**
Primary Accession	P28562
Other Accession	NP_004408, 1843, 19252 (mouse)
Reactivity	**Human, Mouse, Rat**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**39298**

Goat Anti-DUSP1 Antibody - Additional Information

Gene ID 1843

Other Names
Dual specificity protein phosphatase 1, 3.1.3.16, 3.1.3.48, Dual specificity protein phosphatase hVH1, Mitogen-activated protein kinase phosphatase 1, MAP kinase phosphatase 1, MKP-1, Protein-tyrosine phosphatase CL100, DUSP1, CL100, MKP1, PTPN10, VH1

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-DUSP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-DUSP1 Antibody - Protein Information

Name DUSP1 (HGNC:3064)

Function
Dual specificity phosphatase that dephosphorylates MAP kinase MAPK1/ERK2 on both 'Thr-183' and 'Tyr-185', regulating its activity during the meiotic cell cycle.

Cellular Location

Nucleus {ECO:0000250|UniProtKB:Q91790}.

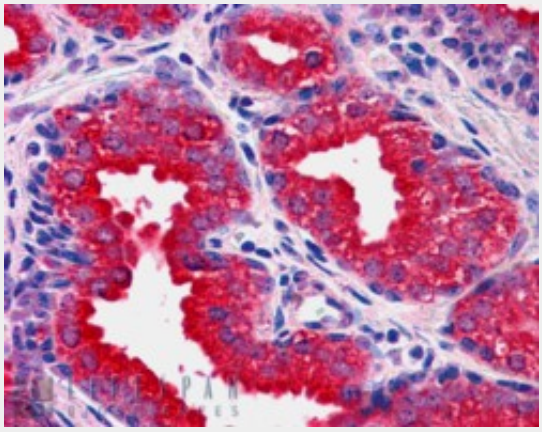
Tissue Location
Expressed at high levels in the lung, liver placenta and pancreas. Moderate levels seen in the heart and skeletal muscle. Lower levels found in the brain and kidney

Goat Anti-DUSP1 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-DUSP1 Antibody - Images



AF1343a (3.8 µg/ml) staining of paraffin embedded Human Prostate. Steamed antigen retrieval with citrate buffer pH 6, AP-staining. **This data is from a previous batch, not on sale.**

AF1343a (1 µg/ml) staining of HeLa lysate (35 µg protein in RIPA buffer). Detected by chemiluminescence.

Goat Anti-DUSP1 Antibody - Background

The expression of DUSP1 gene is induced in human skin fibroblasts by oxidative/heat stress and growth factors. It specifies a protein with structural features similar to members of the non-receptor-type protein-tyrosine phosphatase family, and which has significant amino-acid sequence similarity to a Tyr/Ser-protein phosphatase encoded by the late gene H1 of vaccinia virus. The bacterially expressed and purified DUSP1 protein has intrinsic phosphatase activity, and specifically inactivates mitogen-activated protein (MAP) kinase in vitro by the concomitant dephosphorylation of both its phosphothreonine and phosphotyrosine residues. Furthermore, it suppresses the activation of MAP kinase by oncogenic ras in extracts of Xenopus oocytes. Thus, DUSP1 may play an important role in the human cellular response to environmental stress as well as in the negative regulation of cellular proliferation.

Goat Anti-DUSP1 Antibody - References

Genetic variation and antioxidant response gene expression in the bronchial airway epithelium of smokers at risk for lung cancer. Wang X, et al. PLoS One, 2010 Aug 3. PMID 20689807.
Dual-specificity phosphatase 1 as a pharmacogenetic modifier of inhaled steroid response among asthmatic patients. Jin Y, et al. J Allergy Clin Immunol, 2010 Sep. PMID 20673984.
Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
Oxidative modification of nuclear mitogen-activated protein kinase phosphatase 1 is involved in transforming growth factor beta1-induced expression of plasminogen activator inhibitor 1 in fibroblasts. Liu RM, et al. J Biol Chem, 2010 May 21. PMID 20228065.
Induction of MKP-1 prevents the cytotoxic effects of PI3K inhibition in hilar cholangiocarcinoma cells. Leelawat K, et al. J Cancer Res Clin Oncol, 2010 Oct. PMID 20145951.