

DUSP1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP8470b**Specification****DUSP1 Antibody (C-term) Blocking Peptide -
Product Information**Primary Accession [P28562](#)**DUSP1 Antibody (C-term) Blocking Peptide -
Additional Information****Gene ID 1843****Other Names**

Dual specificity protein phosphatase 1, 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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8470b](#) was selected from the C-term region of human DUSP1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**DUSP1 Antibody (C-term) Blocking Peptide -
Protein Information****DUSP1 Antibody (C-term) Blocking Peptide
- 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.

**DUSP1 Antibody (C-term) Blocking Peptide
- References**

Wu,W., et al., J. Biol. Chem. 280 (6), 4117-4124 (2005). Small,G.W., et al., Mol. Pharmacol. 66 (6), 1478-1490 (2004). Chandrasekharan,U.M., et al., J. Biol. Chem. 279 (45), 46678-46685 (2004). Mizuno,R., et al., J. Urol. 172 (2), 723-727 (2004). Vicent,S., et al., Clin. Cancer Res. 10 (11), 3639-3649 (2004).

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

**DUSP1 Antibody (C-term) Blocking Peptide
- Protocols**

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

- [Blocking Peptides](#)