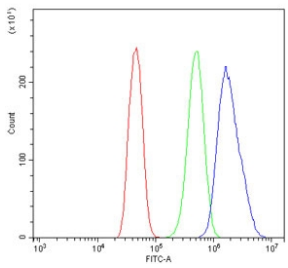
DUSP1 Antibody (RQ6126)

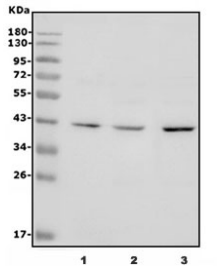
Catalog No.	Formulation	Size
RQ6126	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P28562
Applications	Western blot: 1-2ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This DUSP1 antibody is available for research use only.



DUSP1 Antibody Human Caco-2 FACS. Flow cytometric analysis of DUSP1 expression was performed using DUSP1 antibody in human Caco-2 cells. DUSP1, also known as Dual Specificity Phosphatase 1 or MKP1 (MAP Kinase Phosphatase 1), is a stress-inducible phosphatase that negatively regulates MAPK signaling through dephosphorylation of ERK, JNK, and p38 kinases. Cells were blocked with goat sera and stained with DUSP1 antibody at 1 ug/million cells. Red = cells alone, Green = isotype control, Blue = DUSP1 antibody. A distinct rightward shift of the DUSP1 antibody histogram relative to the isotype control demonstrates specific detection of DUSP1 expression in Caco-2 cells. These results support the utility of DUSP1 Antibody for studies of MAPK regulation, signal transduction, cellular stress responses, and epithelial cell biology.



DUSP1 Antibody Human Cell Line Panel WB. Western blot analysis of DUSP1 expression was performed using anti-DUSP1 antibody in human U-87 MG, HeLa, and A549 cell lysates. DUSP1, also known as Dual Specificity Phosphatase 1 or MKP1 (MAP Kinase Phosphatase 1), is a stress-inducible phosphatase that negatively regulates MAPK signaling by dephosphorylating ERK, JNK, and p38 kinases. Lane 1: U-87 MG lysate. Lane 2: HeLa lysate. Lane 3: A549 lysate. A specific immunoreactive band is detected at approximately 39 kDa in all three cell lines, corresponding to the predicted molecular weight of DUSP1. The widespread expression observed across glioblastoma, cervical carcinoma, and lung carcinoma cells is consistent with the fundamental role of DUSP1 in regulating cellular stress responses and MAPK-mediated signal transduction. These results support the utility of DUSP1 Antibody for studies of MAPK regulation, inflammation, cellular adaptation, and cancer biology.

Description

DUSP1 Antibody specifically binds Dual specificity protein phosphatase 1 protein, an enzyme that in humans is encoded by the DUSP1 gene. The protein encoded by this gene is a phosphatase with dual specificity for tyrosine and threonine. The encoded protein can dephosphorylate MAP kinase MAPK1/ERK2, which results in its involvement in several cellular processes. This protein appears to play an important role in the human cellular response to environmental stress as well as in the negative regulation of cellular proliferation. Finally, the encoded protein can make some solid tumors resistant to both chemotherapy and radiotherapy, making it a target for cancer therapy.

Explore our DUSP1 Antibody / MAPK Signaling Regulator Antibody page for additional information on this important negative regulator of MAPK signaling and cellular stress responses.

Application Notes

Optimal dilution of the DUSP1 antibody should be determined by the researcher.

Immunogen

Amino acids NAELRGRLLAGAYHAVVLLDERSAALD from the human protein were used as the immunogen for the DUSP1 antibody.

Storage

After reconstitution, the DUSP1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Ordering: Phone: 858.663.9055 | Fax: 1.267.821.0800 | Email: info@nsjbio.com
Copyright © NSJ Bioreagents. All rights reserved.