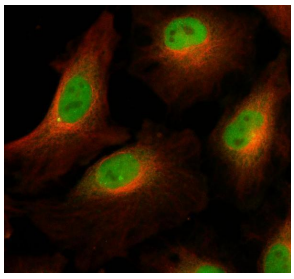
DUSP12 Antibody / Dual specificity protein phosphatase 12 Antibody (FY13607)

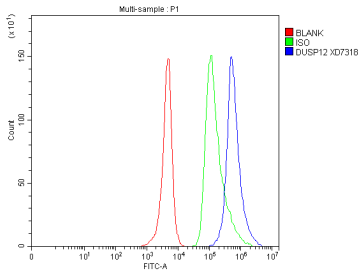
Catalog No.	Formulation	Size
FY13607	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

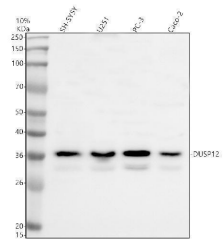
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9UNI6
Applications	Western blot: 0.5-1ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5 ug/ml
Limitations	For research use only, this DUSP12 Antibody / Dual specificity protein phosphatase 12 Antibody is not intended for diagnostic or therapeutic use.



DUSP12 Antibody by IF in HeLa cells. Immunofluorescence staining of HeLa cells using Dual specificity protein phosphatase 12 Antibody reveals strong green nuclear staining with a weaker surrounding cytoplasmic signal. Target immunoreactivity is shown in green, with alpha-tubulin labeling in red. The cells underwent enzyme-based antigen retrieval, blocking with 10% goat serum, and overnight primary antibody incubation at 5 ug/mL at 4oC. Fluorescent secondary antibodies were applied at 1:500 before microscopy.



DUSP12 Antibody by FACS in SH-SY5Y cells. Flow cytometry of fixed, permeabilized SH-SY5Y cells using Dual specificity protein phosphatase 12 Antibody shows a rightward fluorescence shift in the antibody-stained population (blue) relative to the rabbit IgG isotype control (green) and blank control (red). Cells were fixed in 4% paraformaldehyde, permeabilized, and incubated with 1 ug primary antibody per 1 x 10^6 cells. A Fluoro488-conjugated secondary antibody was used for detection. This assay measures intracellular immunoreactivity rather than surface expression.



DUSP12 Antibody by WB in human cell lines. Western blot analysis using Dual specificity protein phosphatase 12 Antibody detects a band near 36 kDa in SH-SY5Y (lane 1), U251 (lane 2), PC-3 (lane 3), and Caco-2 (lane 4) whole-cell lysates. The observed migration is compared with the calculated molecular weight of approximately 38 kDa. Reduced lysates containing 30 ug protein per lane were separated by 10% SDS-PAGE and transferred to nitrocellulose. Following blocking with 5% nonfat milk, the membrane was incubated with primary antibody at 0.5 ug/mL overnight at 4oC. Bound antibody was detected using an HRP-conjugated secondary antibody and chemiluminescence.

Description

DUSP12 Antibody / Dual specificity protein phosphatase 12 Antibody recognizes DUSP12, a protein with important roles in cellular physiology. Dual specificity protein phosphatase 12 is an enzyme encoded by DUSP12 and belongs to the dual-specificity phosphatase family. Members of this family remove phosphate groups from phosphorylated substrates and can act on phosphotyrosine as well as phosphoserine or phosphothreonine residues. DUSP12 contains a conserved catalytic phosphatase domain and a cysteine-rich region that distinguishes it from several better-characterized MAP kinase phosphatases.

DUSP12 has been linked to the regulation of cell growth, survival, and stress responses, although its full complement of physiological substrates remains incompletely defined. Studies have implicated the protein in signaling networks that affect proliferation and cellular adaptation. Its phosphatase activity offers a mechanism through which phosphorylation-dependent signals can be adjusted in duration or intensity, but specific pathway assignments require attention to experimental context. Dual specificity protein phosphatase 12 Antibody is a useful designation for this molecular target.

The protein has also been investigated in relation to ribosome biology and cellular responses to environmental stress. DUSP12 can associate with proteins involved in RNA metabolism and other intracellular processes, suggesting functions that extend beyond a simple model of direct MAP kinase dephosphorylation. Reports of altered DUSP12 expression in malignancies have prompted interest in its possible contributions to tumor cell behavior, without establishing a uniform role across cancers.

Because phosphorylation controls protein localization, complex formation, and catalytic activity, phosphatases such as DUSP12 participate in maintaining the balance of cellular signaling. Understanding the specificity and regulation of DUSP12 remains important for separating its established catalytic properties from proposed functions in distinct biological settings. NSJ Bioreagents provides DUSP12 Antibody for research into the molecular biology of DUSP12. A DUSP12 Antibody supports investigation of the biological processes associated with this protein.

Explore related research targets in our Signal Transduction Antibodies for Cell Signaling and Regulatory Pathway Research collection.

Application Notes

Optimal working dilutions for the DUSP12 Antibody / Dual specificity protein phosphatase 12 Antibody should be established experimentally for each assay.

Immunogen

The DUSP12 Antibody was generated using e. coli-derived human DUSP12 recombinant protein (amino acids E44-I340).

Storage

After reconstitution, keep the DUSP12 Antibody at 4oC for up to one month. Alternatively, store aliquots at -20oC for up to six months. Avoid multiple freezing and thawing cycles.

Alternate Names

DUSP12 antibody, Dual specificity protein phosphatase 12 antibody, dual specificity phosphatase 12 antibody, EC:3.1.3.16 antibody, DUSP12 rabbit polyclonal antibody

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