

DUSP22 (9J2): sc-135602

BACKGROUND

Mitogen-activated protein (MAP) kinases are a large class of proteins involved in signal transduction pathways that are activated by a range of stimuli and mediate a number of physiological and pathological changes in the cell. Dual specificity phosphatases (DSPs) are a subclass of the protein tyrosine phosphatase (PTP) gene superfamily, which are selective for dephosphorylating critical phosphothreonine and phosphotyrosine residues within MAP kinases. DSP gene expression is induced by a host of growth factors and/or cellular stresses, thereby negatively regulating MAP kinase superfamily members including MAPK/ERK, SAPK/JNK and p38. DUSP22 dephosphorylates ERK2 MAP kinase and JNK. DUSP22 displays highest in thymus, but it is also detectable in monocytes and lymphocytes.

REFERENCES

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3. Camps, M., et al. 2000. Dual specificity phosphatases: a gene family for control of MAP kinase function. *FASEB J.* 14: 6-16.
4. Shen, Y., et al. 2001. Activation of the Jnk signaling pathway by a dual-specificity phosphatase, JSP-1. *Proc. Natl. Acad. Sci. USA* 98: 13613-13618.
5. Alonso, A., et al. 2002. Inhibition of T cell antigen receptor signaling by VHR-related MKPX (VHX), a new dual specificity phosphatase related to VH1 related (VHR). *J. Biol. Chem.* 277: 5524-5528.
6. Alonso, A., et al. 2004. VHY, a novel myristoylated testis-restricted dual specificity protein phosphatase related to VHX. *J. Biol. Chem.* 279: 32586-32591.
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CHROMOSOMAL LOCATION

Genetic locus: DUSP22 (human) mapping to 6p25.3.

SOURCE

DUSP22 (9J2) is a mouse monoclonal antibody raised against recombinant DUSP22 protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

DUSP22 (9J2) is recommended for detection of DUSP22 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DUSP22 siRNA (h): sc-61784, DUSP22 shRNA Plasmid (h): sc-61784-SH and DUSP22 shRNA (h) Lentiviral Particles: sc-61784-V.

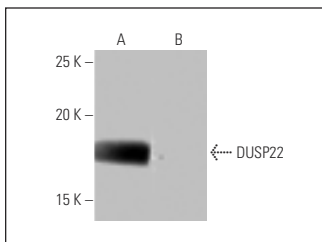
Molecular Weight of DUSP22: 19 kDa.

Positive Controls: human DUSP22 transfected 293T whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



DUSP22 (9J2): sc-135602. Western blot analysis of DUSP22 expression in human DUSP22 transfected (A) and non-transfected (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.