

DUSP22 (H-66): sc-135218

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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2. Sun, H. 1998. Functional studies of dual-specificity phosphatases. *Methods Mol. Biol.* 84: 307-318.
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.
7. Alonso, A. et al. 2004. The minimal essential core of a cysteine-based protein-tyrosine phosphatase revealed by a novel 16-kDa VH1-like phosphatase, VHZ. *J. Biol. Chem.* 279: 35768-35774.

CHROMOSOMAL LOCATION

Genetic locus: DUSP22 (human) mapping to 6p25.3; Dusp22 (mouse) mapping to 13 A3.2.

SOURCE

DUSP22 (H-66) is a rabbit polyclonal antibody raised against amino acids 14-79 mapping near the N-terminus of DUSP22 of human origin.

PRODUCT

Each vial contains 200 µg IgG 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 (H-66) is recommended for detection of DUSP22 of mouse, rat and 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

DUSP22 (H-66) is also recommended for detection of DUSP22 in additional species, including canine, bovine and avian.

Suitable for use as control antibody for DUSP22 siRNA (h): sc-61784, DUSP22 siRNA (m): sc-61785, DUSP22 shRNA Plasmid (h): sc-61784-SH, DUSP22 shRNA Plasmid (m): sc-61785-SH, DUSP22 shRNA (h) Lentiviral Particles: sc-61784-V and DUSP22 shRNA (m) Lentiviral Particles: sc-61785-V.

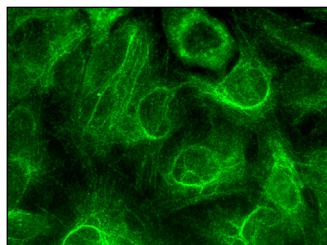
Molecular Weight of DUSP22: 19 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



DUSP22 (H-66): sc-135218. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic and nuclear localization.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **DUSP22 (9J2): sc-135602**, our highly recommended monoclonal alternative to DUSP22 (H-66).