

MKP-5 (T-12): sc-47665

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. MKP-5 preferentially binds to p38, but also to SAPK/JNK. It is ubiquitously expressed and localizes to both the cytoplasm and the nucleus. MKP-5 has been implicated in cell proliferation and apoptosis, tumor invasion and immune responses.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DUSP10 (human) mapping to 1q41; Dusp10 (mouse) mapping to 1 H5.

RESEARCH USE

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

SOURCE

MKP-5 (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MKP-5 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.

Blocking peptide available for competition studies, sc-47665 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MKP-5 (T-12) is recommended for detection of MKP-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

MKP-5 (T-12) is also recommended for detection of MKP-5 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MKP-5 siRNA (h): sc-61048, MKP-5 siRNA (m): sc-61049, MKP-5 shRNA Plasmid (h): sc-61048-SH, MKP-5 shRNA Plasmid (m): sc-61049-SH, MKP-5 shRNA (h) Lentiviral Particles: sc-61048-V and MKP-5 shRNA (m) Lentiviral Particles: sc-61049-V.

Molecular Weight of MKP-5: 53 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

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