

PIR1 (H-40): sc-135216

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 (DUSPs) are a subclass of the protein tyrosine phosphatase (PTP) gene superfamily, which are selective for dephosphorylating critical phosphothreonine and phosphotyrosine residues within MAP kinases. DUSP 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. One member of this subfamily, PIR1 (phosphatase that interacts with RNA/RNP complex 1, also designated dual specificity protein phosphatase 11), removes two phosphates from the 5'-triphosphate end of RNA, but not from mononucleotide triphosphates. PIR1 interacts with splicing factors 9G8 and SRp30C, and may participate in nuclear mRNA metabolism.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DUSP11 (human) mapping to 2p13.1; Dusp11 (mouse) mapping to 6 C3.

SOURCE

PIR1 (H-40) is a rabbit polyclonal antibody raised against amino acids 67-106 mapping within an internal region of PIR1 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.

APPLICATIONS

PIR1 (H-40) is recommended for detection of PIR1 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).

PIR1 (H-40) is also recommended for detection of PIR1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PIR1 siRNA (h): sc-61357, PIR1 siRNA (m): sc-61358, PIR1 shRNA Plasmid (h): sc-61357-SH, PIR1 shRNA Plasmid (m): sc-61358-SH, PIR1 shRNA (h) Lentiviral Particles: sc-61357-V and PIR1 shRNA (m) Lentiviral Particles: sc-61358-V.

Molecular Weight of PIR1: 39 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or A-431 whole cell lysate: sc-2201.

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.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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