

MPPE1 (P-20): sc-85070

BACKGROUND

Metallophosphoesterases (MPPEs) are dynamic enzymes that catalyze a variety of cellular reactions and contain a conserved β - α - β - α - β fold. The MPPE superfamily is divided into two subfamilies: phosphomonoesterases and phosphodiesterases. Each MPPE has a dimetal center located approximately at the C-terminal end of the parallel β -strands of the fold. MPPE1 (Metallophosphoesterase 1) is a 396 amino acid multipass membrane enzyme that requires 2 divalent metals as cofactors. MPPE1 contains a N-terminal signal peptide, a typical metallophosphoesterase domain and a C-terminal transmembrane domain. Expression of MPPE1 seems to be limited to brain. There are five isoforms of MPPE1 that are produced as a result of alternative splicing events.

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CHROMOSOMAL LOCATION

Genetic locus: MPPE1 (human) mapping to 18p11.21; Mppe1 (mouse) mapping to 18 E1.

SOURCE

MPPE1 (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MPPE1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85070 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MPPE1 (P-20) is recommended for detection of MPPE1 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).

MPPE1 (P-20) is also recommended for detection of MPPE1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MPPE1 siRNA (h): sc-75819, MPPE1 siRNA (m): sc-149539, MPPE1 shRNA Plasmid (h): sc-75819-SH, MPPE1 shRNA Plasmid (m): sc-149539-SH, MPPE1 shRNA (h) Lentiviral Particles: sc-75819-V and MPPE1 shRNA (m) Lentiviral Particles: sc-149539-V.

Molecular Weight of MPPE1: 45 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.

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.