

# MKP-6 (C-20): sc-48039

## BACKGROUND

The deduced 198 amino acid MAP kinase phosphatase 6 (MKP-6), also designated MAP6 and dual-specificity phosphatase 14 (DUSP14), is homologous to other MKP family proteins in that it has a conserved, centrally located, catalytic core, but differs from traditional MKP proteins because it contains unique N- and C-terminal regions. Binding and deletion analyses have established that the interaction between the cytoplasmic tail of CD28 (a T cell antigen) and MKP-6 occurs at Tyr 200 of CD28 and is specific for both MKP-6 and CD28; however, Tyr 200 can be mutated to Phe 200 without a loss of binding ability. Functional analysis indicates that MKP-6 dephosphorylates ERK, JNK and p38 while acting as a negative regulator of CD28 signaling. MKP-6 is expressed ubiquitously, although expression is stronger in certain cell types and tissues than in others.

## CHROMOSOMAL LOCATION

Genetic locus: DUSP14 (human) mapping to 17q12; Dusp14 (mouse) mapping to 11 C.

## SOURCE

MKP-6 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MKP-6 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, ready P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

MKP-6 (C-20) is recommended for detection of MKP-6 of mouse 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).

MKP-6 (C-20) is also recommended for detection of MKP-6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MKP-6 siRNA (h): sc-61050, MKP-6 siRNA (m): sc-61051, MKP-6 shRNA Plasmid (h): sc-61050-SH, MKP-6 shRNA Plasmid (m): sc-61051-SH, MKP-6 shRNA (h) Lentiviral Particles: sc-61050-V and MKP-6 shRNA (m) Lentiviral Particles: sc-61051-V.

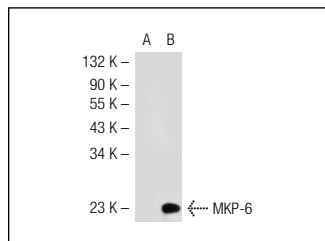
Molecular Weight of MKP-6: 26 kDa.

Positive Controls: MKP-6 (m): 293T Lysate: sc-125622 or Hep G2 cell lysate: sc-2227.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



MKP-6 (C-20): sc-48039. Western blot analysis of MKP-6 expression in non-transfected: sc-117752 (A) and mouse MKP-6 transfected: sc-125622 (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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **MKP-6 (4B5-E6): sc-517023**, our highly recommended monoclonal alternative to MKP-6 (C-20).