



# DUSP18 (V-14): sc-79445

## BACKGROUND

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. DUSP18 (dual specificity protein phosphatase 18), also known as low molecular weight dual specificity phosphatase 20, is a 188 amino acid enzyme that functions optimally at a pH of 6.0 and at a temperature of 55 degrees celsius. With highest expression in testis, brain, ovary and liver, DUSP18 is inhibited by iodoacetic acid and is activated by manganese ions. Along with having preferential enzymatic activity against phosphorylated tyrosine residues over threonine residues, DUSP18 also dephosphorylates p-nitrophenyl phosphate (pNPP) *in vitro*.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Dusp18 (mouse) mapping to 11 A1.

## SOURCE

DUSP18 (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DUSP18 of mouse 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-79445 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

DUSP18 (V-14) is recommended for detection of DUSP18 of mouse 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).

Suitable for use as control antibody for DUSP18 siRNA (m): sc-77199, DUSP18 shRNA Plasmid (m): sc-77199-SH and DUSP18 shRNA (m) Lentiviral Particles: sc-77199-V.

Molecular Weight of DUSP18: 21 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](http://www.scbt.com) or our catalog for detailed protocols and support products.