**BACKGROUND**

Protein tyrosine phosphorylation plays a key role in the regulation of several fundamental cellular processes, including cell growth, migration and differentiation. The regulation of phosphorylation is controlled by the opposing actions of protein tyrosine kinases and protein tyrosine phosphatases. BDP1 (brain derived phosphatase 1) is a member of the PEST protein tyrosine phosphatase family. The expression of BDP1 is not limited to the brain, but is also detectable in colon and several tumor-derived cell lines. BDP1 has been shown to differentially dephosphorylate autophosphorylated tyrosine kinases, such as SRC and EGFR, that are overexpressed in tumor tissues.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PTPN18 (human) mapping to 2q21.1; Ptpn18 (mouse) mapping
to 1B.

**SOURCE**

BDP1 (A-3) is a mouse monoclonal antibody specific for an epitope mapping
between amino acids 425-455 near the C-terminus of BDP1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166745 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**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.

**APPLICATIONS**

BDP1 (A-3) is recommended for detection of BDP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1000), 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with PTP-PEST.

BDP1 (A-3) is also recommended for detection of BDP1 in additional species, including porcine.

Suitable for use as control antibody for BDP1 siRNA (h): sc-106797, BDP1
siRNA (m): sc-155870, BDP1 shRNA Plasmid (h): sc-106797-SH, BDP1 shRNA
Plasmid (m): sc-155870-SH, BDP1 shRNA (h) Lentiviral Particles: sc-106797-V
and BDP1 shRNA (m) Lentiviral Particles: sc-155870-V.

Molecular Weight of BDP1: 50 kDa.

Positive Controls: BDP1 (m): 293T Lysate: sc-118795.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz
Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent:
sc-516214 and Western Blotting Luminal Reagent: sc-2048. 2) Immunopre-
cipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
3) Immunofluorescence: use m-IgG BP-PE: sc-516140 or m-IgG BP-FITC: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium:
sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359880. 4) Immuno-
histochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982
and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**


BDP1 (A-3): sc-166745. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

**PROTOCOLS**

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