

PBP (L-18): sc-26916

BACKGROUND

Members of the α -chemokine subfamily of inducible, secreted, pro-inflammatory cytokines contain a similar motif, in which the first two cysteine residues are separated by a single residue (Cys-X-Cys), and are also chemotactic for neutrophils. The platelet basic protein (PBP), a member of the α -chemokine family, resides in the α -granules of platelets and is released upon their activation. Proteolytic cleavage of the amino-terminus of PBP leads to the generation of several peptides, which include mature PBP, connective tissue-activating peptide III (CTAP III, also designated low affinity platelet factor IV (LA-PF4)), β thromboglobulin (β TG), and neutrophil-activating peptide 2 (NAP-2). PBP and its N-truncated derivatives mediate inflammation and wound healing. Specifically, NAP-2 activates chemotaxis and degranulation in neutrophils during inflammation. The gene encoding human PBP maps to chromosome 4q13.3.

REFERENCES

- Holt, J.C., et al. 1986. Characterization of human platelet basic protein, a precursor form of low-affinity platelet factor 4 and β thromboglobulin. *Biochemistry* 25: 1988-1996.
- Wenger, R.H., et al. 1991. Human platelet basic protein/connective tissue activating peptide III maps in a gene cluster on chromosome 4q12-q13 along with other genes of the β thromboglobulin superfamily. *Hum. Genet.* 87: 367-368.
- Car, B.D., et al. 1991. Formation of neutrophil-activating peptide 2 from platelet-derived connective-tissue-activating peptide III by different tissue proteinases. *Biochem. J.* 275: 581-584.
- Hoogewerf, A.J., et al. 1995. CXC chemokines connective tissue activating peptide III and neutrophil activating peptide-2 are heparin/heparan sulfate-degrading enzymes. *J. Biol. Chem.* 270: 3268-3277.
- Malkowski, M.G., et al. 1997. The amino-terminal residues in the crystal structure of connective tissue activating peptide III (des10) block the ELR chemotactic sequence. *J. Mol. Biol.* 266: 367-380.
- Proudfoot, A.E., et al. 1997. Structure and bioactivity of recombinant human CTAP III and NAP-2. *J. Protein Chem.* 16: 37-49.

CHROMOSOMAL LOCATION

Genetic locus: PPBP (human) mapping to 4q13.3.

SOURCE

PBP (L-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PBP 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-26916 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PBP (L-18) is recommended for detection of PBP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for PBP siRNA (h): sc-39363, PBP shRNA Plasmid (h): sc-39363-SH and PBP shRNA (h) Lentiviral Particles: sc-39363-V.

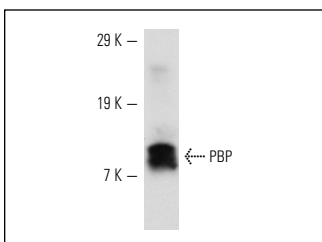
Molecular Weight of PBP: 8 kDa.

Positive Controls: Human platelet whole cell lysate: sc-363773.

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



PBP (L-18): sc-26916. Western blot analysis of PBP expression in human platelet whole cell lysate.

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.

MONOS
Satisfaction
Guaranteed

Try **PBP (C-24): sc-73636**, our highly recommended monoclonal alternative to PBP (L-18).