

# PBP (C-24): sc-73636

## BACKGROUND

Members of the  $\alpha$ -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  $\alpha$ -chemokine family, resides in the  $\alpha$ -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)),  $\beta$  thromboglobulin ( $\beta$  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  $\beta$  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  $\beta$  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.

## CHROMOSOMAL LOCATION

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

## SOURCE

PBP (C-24) is a mouse monoclonal antibody raised against PBP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for inhibition of NAP-2, sc-73636 L, 200  $\mu$ g/0.1 ml.

PBP (C-24) is available conjugated to agarose (sc-73636 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-73636 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-73636 PE), fluorescein (sc-73636 FITC), Alexa Fluor<sup>®</sup> 488 (sc-73636 AF488), Alexa Fluor<sup>®</sup> 546 (sc-73636 AF546), Alexa Fluor<sup>®</sup> 594 (sc-73636 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-73636 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-73636 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-73636 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

PBP (C-24) 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  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with PF-4, CXCL-4, IL-8/CXCL-8 or MGSA/GRO $\alpha$ /CXCL-1.

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.

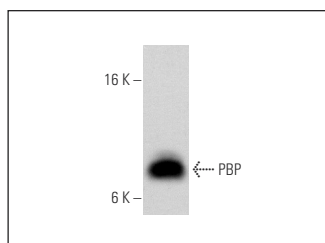
Positive Controls: human platelet extract: sc-363773.

## RECOMMENDED SUPPORT REAGENTS

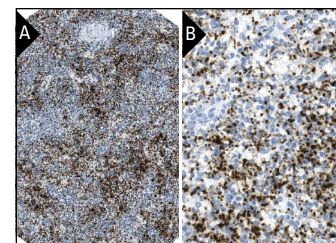
To ensure optimal results, the following support reagents are recommended:

- Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



PBP (C-24): sc-73636. Western blot analysis of PBP expression in human platelet whole cell lysate.



PBP (C-24): sc-73636. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing staining of platelets in red pulp at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

## SELECT PRODUCT CITATIONS

- Baek, S.H., et al. 2006. Ligand-specific allosteric regulation of coactivator functions of androgen receptor in prostate cancer cells. *Proc. Natl. Acad. Sci. USA* 103: 3100-3105.

## STORAGE

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