

# EMBP (F-6): sc-365701

## BACKGROUND

The eosinophil major basic protein (EMBP), also designated MBP, PRG2, proteoglycan 2, BMPG, or bone marrow natural killer cell activator, is a constituent of the crystalline core of the eosinophil granule. High levels of the pro-EMBP are present in placenta and pregnancy serum, where it exists as a complex with several other proteins including pregnancy-associated plasma protein A (PAPPA), angiotensinogen (AGT) and C3 $\delta$ . EMBP may influence antiparasitic defense mechanisms as a cytotoxin and helminthotoxin, and may play a role in immune hypersensitivity reactions. EMBP stimulates an Src kinase-dependent activation of class I (A) phosphoinositide 3-kinase and, in turn, activation of protein kinase C  $\zeta$  in neutrophils. EMBP transcription is under regulation by novel combinatorial interactions of GATA-1, PU.1, and C/EBP $\epsilon$  isoforms.

## CHROMOSOMAL LOCATION

Genetic locus: PRG2 (human) mapping to 11q12.1; Prg2 (mouse) mapping to 2 D.

## SOURCE

EMBP (F-6) is a mouse monoclonal antibody raised against amino acids 1-222 representing full length EMBP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EMBP (F-6) is available conjugated to agarose (sc-365701 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365701 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365701 PE), fluorescein (sc-365701 FITC), Alexa Fluor<sup>®</sup> 488 (sc-365701 AF488), Alexa Fluor<sup>®</sup> 546 (sc-365701 AF546), Alexa Fluor<sup>®</sup> 594 (sc-365701 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-365701 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-365701 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-365701 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

EMBP (F-6) is recommended for detection of EMBP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

Suitable for use as control antibody for EMBP siRNA (h): sc-44577, EMBP siRNA (m): sc-42905, EMBP shRNA Plasmid (h): sc-44577-SH, EMBP shRNA Plasmid (m): sc-42905-SH, EMBP shRNA (h) Lentiviral Particles: sc-44577-V and EMBP shRNA (m) Lentiviral Particles: sc-42905-V.

Molecular Weight of proEMBP precursor: 25 kDa.

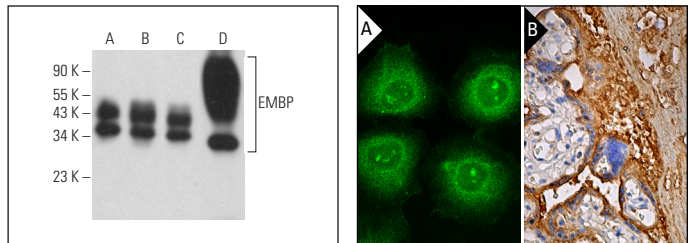
Molecular Weight of mature EMBP: 14 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HEL 92.1.7 cell lysate: sc-2270 or K-562 whole cell lysate: sc-2203.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) 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



EMBP (F-6): sc-365701. Western blot analysis of EMBP expression in HL-60 (A), K-562 (B) and HEL 92.1.7 (C) whole cell lysates and human placenta tissue extract (D).

EMBP (F-6): sc-365701. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of Decidual and Trophoblastic cells (B).

## SELECT PRODUCT CITATIONS

- Lee, H.Y., et al. 2019. Pravastatin alleviates allergic airway inflammation in obesity-related asthma mouse model. *Exp. Lung Res.* 45: 275-287.

## 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) for detailed protocols and support products.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA