

EMBP (F-6): sc-365701



The Power to Question

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 δ . 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 ζ in neutrophils. EMBP transcription is under regulation by novel combinatorial interactions of GATA-1, PU.1, and C/EBP ϵ 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 μ g IgG $_{2b}$ 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 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365701 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365701 PE), fluorescein (sc-365701 FITC), Alexa Fluor[®] 488 (sc-365701 AF488), Alexa Fluor[®] 546 (sc-365701 AF546), Alexa Fluor[®] 594 (sc-365701 AF594) or Alexa Fluor[®] 647 (sc-365701 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365701 AF680) or Alexa Fluor[®] 790 (sc-365701 AF790), 200 μ 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 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), 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.

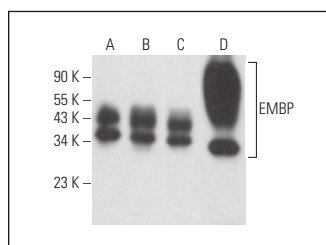
Molecular Weight of mature EMBP: 14 kDa.

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.

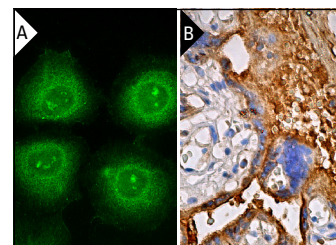
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 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 κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ 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.
- Ma, L., et al. 2024. Ferroptotic alveolar epithelial type II cells drive T_H2 and T_H17 mixed asthma triggered by birch pollen allergen Bet v 1. *Cell Death Discov.* 10: 96.

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 for detailed protocols and support products.

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