SANTA CRUZ BIOTECHNOLOGY, INC.

EMBP (1.B.787): sc-59163

SANTA CRUZ BIOTECHNOLOGY

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 C3dg. EMBP may influence antiparasitic defense mechanisms as a cytotoxin and helminthotoxin, and in immune hypersensitivity reactions. It stimulates an Src kinase-dependent activation of class I(A) phosphoinositide 3-kinase and, in turn, activation of protein kinase Cζ in neutrophils. EMBP transcription is under regulation by novel combinatorial interactions of GATA-1, PU.1, and C/EBPε isoforms.

REFERENCES

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7. Yamaguchi, Y., et al. 1999. C/EBPβ and GATA-1 synergistically regulate activity of the eosinophil granule major basic protein promoter: implication for C/EBPβ activity in eosinophil gene expression. Blood 94: 1429-1439.
8. Overgaard, M.T., et al. 2000. Expression of recombinant human pregnancy-associated plasma protein-A and identification of the proform of eosinophil major basic protein as its physiological inhibitor. J. Biol. Chem. 275: 31128-31133.
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CHROMOSOMAL LOCATION

Genetic locus: PRG2 (human) mapping to 11q12.1.

SOURCE

EMBP (1.B.787) is a mouse monoclonal antibody raised against full length EMBP of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EMBP (1.B.787) is recommended for detection of EMBP irrespective of the stages of eosinophil activation of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); also recommended for detection of secreted pro-form of MBP (Pregnancy associated MBP, 23.8kDa) and mature form found in the matrix of the eosinophil large specific granule (13.8kDa).

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

Molecular Weight of proEMBP precursor: 25 kDa.

Molecular Weight of mature EMBP: 14 kDa.

Positive Controls: MEG-01 cell lysate: sc-2283.

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.