BACKGROUND

Endothelial monocyte-activating polypeptide (EMAP II), also known as small inducible cytokine subfamily E, member 1 (SCYE1), is a chemoattractant cytokine for monocytes and granulocytes that is inducible by apoptosis. TNFα treatment of murine A fibrosarcomas and B16 melanomas upregulates EMAP II mRNA production. The release of this cytokine renders the tumor-associated vasculature sensitive to tumor necrosis factor. EMAP II mRNA translates as a precursor protein, proEMAP II, which undergoes proteolysis to become the mature, biologically active cytokine. ProEMAP II may function in binding RNA as part of the tRNA synthetase complex in normal cells and in stimulating inflammatory responses after proteolytic cleavage in tumor cells.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: AIMP1 (human) mapping to 4q24; Aimp1 (mouse) mapping to 3 G3.

SOURCE

EMAP II (G-2) is a mouse monoclonal antibody raised against amino acids 221-312 mapping at the C-terminus of EMAP II of human origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

EMAP II (G-2) is recommended for detection of precursor and mature EMAP II of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 1:50-1:100) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).

Suitable for use as control antibody for EMAP II siRNA (h): sc-61855, EMAP II siRNA (m): sc-61856, EMAP II shRNA Plasmid (h): sc-61855-SH, EMAP II shRNA Plasmid (m): sc-61856-SH, EMAP II shRNA (h) Lentiviral Particles: sc-61855-V and EMAP II shRNA (m) Lentiviral Particles: sc-61856-V.

Molecular Weight of EMAP II: 38-40 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, WEHI-231 whole cell lysate: sc-2213 or A-10 cell lysate: sc-3806.

RECOMMENDED SUPPORT REAGENTS

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

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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-2035 or Protein A/G PLUS-Agarose: sc-3803 (0.5 ml agarose/2.0 ml), sc-2048.


DATA

EMAP II (G-2): sc-271115. Western blot analysis of EMAP II expression in THP-1 (A), HT-1080 (B), WEHI-231 (C) and A-10 (D) whole cell lysates and rat testis tissue extract (E).

EMAP II (G-2): sc-271115. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human brain tissue showing cytoplasmic staining of neuronal and glial cells (B).

RESEARCH USE

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