



EMR3 (L-17): sc-34338

BACKGROUND

The epidermal growth factor (EGF)-TM7 family constitutes a group of leukocyte-restricted, class B, G protein-coupled receptors (GPCRs). These include CD97, EMR1 (EGF-like molecule containing mucin-like hormone receptor 1, designated F4/80 in mouse), EMR2, EMR3, FIRE and ETL. These family members are characterized by an extended extracellular region with several N-terminal EGF domains and are predominantly expressed on cells of the immune system. Unlike other GPCRs, neither EMR2 nor EMR3 have mouse orthologs. The molecular twins CD97 and EMR2 only differ by six out of 236 amino acids, but this slight difference is enough to alter ligand specificity and confer nonredundant functions. EMR3 may function in myeloid-myeloid interactions during immune and inflammatory responses.

REFERENCES

1. Stacey, M., et al. 2001. Human epidermal growth factor (EGF) module-containing mucin-like hormone receptor 3 is a new member of the EGF-TM7 family that recognizes a ligand on human macrophages and activated neutrophils. *J. Biol. Chem.* 276: 18863-18870.
2. Kwakkenbos, M.J., et al. 2002. The human EGF-TM7 family member EMR2 is a heterodimeric receptor expressed on myeloid cells. *J. Leukoc. Biol.* 71: 854-862.
3. Bjarnadottir, T.K., et al. 2004. The human and mouse repertoire of the adhesion family of G protein-coupled receptors. *Genomics* 84: 23-33.
4. Leemans, J.C., et al. 2004. The epidermal growth factor-seven transmembrane (EGF-TM7) receptor CD97 is required for neutrophil migration and host defense. *J. Immunol.* 172: 1125-1131.

CHROMOSOMAL LOCATION

Genetic locus: EMR3 (human) mapping to 19p13.1.

SOURCE

EMR3 (L-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of EMR3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34338 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

EMR3 (L-17) is recommended for detection of EMR3 isoforms a and b 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EMR3 siRNA (h): sc-45399.

Molecular Weight of EMR3: 73 kDa.

Positive Controls: ALL-SIL cell lysate, Jurkat whole cell lysate: sc-2204 or HL-60 whole cell lysate: sc-2209.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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