

ETL (M-174): sc-292226

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. ETL is a 738 amino acid protein composed of a large extracellular domain with EGF-like repeats, a seven-transmembrane domain and a short cytoplasmic tail. ETL mRNA expression is upregulated in the adult rat and human heart.

REFERENCES

1. Nechiporuk, T., et al. 2001. ETL, a novel TM7 receptor that is developmentally regulated in the heart. ETL is a member of the secretin family and belongs to the EGF-TM7 subfamily. *J. Biol. Chem.* 276: 4150-4157.
2. 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.
3. 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.
4. Bjarnadottir, T.K., et al. 2004. The human and mouse repertoire of the adhesion family of G protein-coupled receptors. *Genomics* 84: 23-33.
5. Leemans, J.C., et al. 2004. The EGF-TM7 receptor CD97 is required for neutrophil migration and host defense. *J. Immunol.* 172: 1125-1131.

CHROMOSOMAL LOCATION

Genetic locus: Etl1 (mouse) mapping to 3 H3.

SOURCE

ETL (M-174) is a rabbit polyclonal antibody raised against amino acids 61-234 mapping within an internal region of ETL of mouse origin.

PRODUCT

Each vial contains 200 µg IgG 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.

RESEARCH USE

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

APPLICATIONS

ETL (M-174) is recommended for detection of ETL of mouse and rat origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ETL siRNA (m): sc-60610, ETL shRNA Plasmid (m): sc-60610-SH and ETL shRNA (m) Lentiviral Particles: sc-60610-V.

Molecular Weight of ETL: 85 kDa.

Positive Controls: mouse lung extract: sc-2390 or rat heart extract: sc-2393.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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