10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

EMP2 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13581b

Specification

EMP2 Antibody (C-term) Blocking peptide - Product Information

Primary Accession P54851

EMP2 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 2013

Other Names
Epithelial membrane protein 2, EMP-2, Protein XMP, EMP2, XMP

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13581b was selected from the C-term region of EMP2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

EMP2 Antibody (C-term) Blocking peptide - Protein Information

Name EMP2

Synonyms XMP

Function
Functions as a key regulator of cell membrane composition by regulating protein surface expression. Also, plays a role in regulation of processes including cell migration, cell proliferation, cell contraction and cell adhesion. Regulates transepithelial migration of neutrophils into the alveolar lumen, potentially via mediation of cell surface expression of adhesion markers and lipid raft formation (By similarity). Negatively regulates caveolae formation by reducing CAV1 expression and CAV1 amount by increasing lysosomal degradation (PubMed:24814193). Facilitates surface trafficking and formation of lipid rafts bearing GPI-anchor proteins (By similarity). Regulates surface expression of MHC1 and ICAM1 proteins increasing susceptibility to T-cell mediated cytotoxicity (By similarity). Regulates the plasma membrane expression of the integrin heterodimers ITGA6-ITGB1, ITGA5- ITGB3 and ITGA5-ITGB1 resulting in modulation of cell-matrix

adhesion (PubMed:16216233). Also regulates many processes through PTK2. Regulates blood vessel endothelial cell migration and angiogenesis by regulating VEGF protein expression through PTK2 activation (PubMed:23439602). Regulates cell migration and cell contraction through PTK2 and SRC activation (PubMed:21637765, PubMed:22728127). Regulates focal adhesion density, F-actin conformation and cell adhesion capacity through interaction with PTK2 (PubMed:19494199). Positively regulates cell proliferation (PubMed:24814193). Plays a role during cell death and cell blebbing (PubMed:12107182). Promotes angiogenesis and vasculogenesis through induction of VEGFA via a HIF1A- dependent pathway (PubMed:23334331). Also plays a role in embryo implantation by regulating surface trafficking of integrin heterodimer ITGA5-ITGB3 (PubMed:16487956). Plays a role in placental angiogenesis and uterine natural killer cell regulation at the maternal-fetal placental interface, however not required in the maternal tissues for a viable pregnancy (By similarity). Involved in the early stages of embryogenic development and cardiogenesis, potentially via regulation of epithelial-mesenchymal transition timing (By similarity). May play a role in glomerular filtration (By similarity).

Cellular Location
Golgi apparatus membrane; Multi-pass membrane protein. Cell membrane. Apical cell membrane {ECO:0000250|UniProtKB:O88662}. Membrane raft. Cytoplasm Nucleus {ECO:0000250|UniProtKB:Q66HH2}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:O88662}. Note=Localizes in cytoplasm, foot processes and cell bodies of podocytes and nucleus of endothelial cells of kidney. Localizes to the apical cell surface in the luminal epithelium and glandular epithelium. Colocalized with ITGB1 and GPI- anchor proteins on plasma membrane. {ECO:0000250|UniProtKB:O88662, ECO:0000250|UniProtKB:Q66HH2}

Tissue Location
Expressed in ciliary body epithelia, sclera, cornea, and retinal pigment epithelium (at protein level) (PubMed:12710941). Expressed in lung and endometrial tissue; expression is particularly abundant in secretory endometrium (at protein level) (PubMed:12710941). Expressed in placental villous syncytiotrophoblasts and cytotrophoblasts and on the membrane of interstitial trophoblasts (at protein level) (PubMed:28295343).

EMP2 Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

EMP2 Antibody (C-term) Blocking peptide - Images

EMP2 Antibody (C-term) Blocking peptide - Background

The function of this protein remains unknown.

EMP2 Antibody (C-term) Blocking peptide - References

Mick, E., et al. J Am Acad Child Adolesc Psychiatry 49(9):898-905(2010)Fu, M., et al. Clin. Cancer Res. 16(15):3954-3963(2010)Shimazaki, K., et al. Clin. Cancer Res. 14(22):7367-7377(2008)Wadehra, M., et al. Reprod. Biol. Endocrinol. 6, 15 (2008) :Forbes, A., et al.

J. Biol. Chem. 282(36):26542-26551(2007)