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EMP2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13581b

Product Information

Application	WB, IHC-P, E
Primary Accession	P54851
Other Accession	NP_001415.1
Reactivity	Mouse
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32736
Calculated MW	19199
Antigen Region	100-129

Additional Information

Gene ID	2013
Other Names	Epithelial membrane protein 2, EMP-2, Protein XMP, EMP2, XMP
Target/Specificity	This EMP2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 100-129 amino acids from the C-terminal region of human EMP2.
Dilution	WB~~1:2000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	EMP2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EMP2 (HGNC:3334)
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 contraction through PTK2 activation (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 {ECO:0000250|UniProtKB:O88662}. Cytoplasm {ECO:0000250|UniProtKB:O88662}. 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).

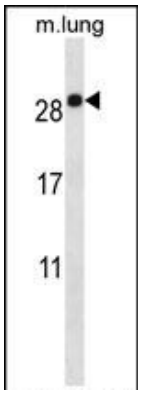
Background

The function of this protein remains unknown.

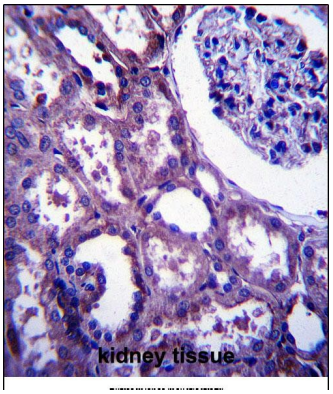
References

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Wadehra, M., et al. Reprod. Biol. Endocrinol. 6, 15 (2008) :
Forbes, A., et al. J. Biol. Chem. 282(36):26542-26551(2007)

Images



EMP2 Antibody (C-term) (Cat. #AP13581b) western blot analysis in mouse lung tissue lysates (35ug/lane).This demonstrates the EMP2 antibody detected the EMP2 protein (arrow).



EMP2 Antibody (C-term) (Cat. #AP13581b)immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of EMP2 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- Loss of Epithelial Membrane Protein 2 Aggravates Podocyte Injury via Upregulation of Caveolin-1.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.