

Anti-PMEPA1 Antibody

Catalog # AP51431

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q969W9
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31609

Additional Information

Gene ID	56937
Other Names	STAG1; TMEPAI; Transmembrane prostate androgen-induced protein; Solid tumor-associated 1 protein
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PMEPA1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

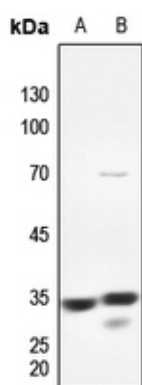
Name	PMEPA1
Synonyms	STAG1, TMEPAI
Function	Functions as a negative regulator of TGF-beta signaling and thereby probably plays a role in cell proliferation, differentiation, apoptosis, motility, extracellular matrix production and immunosuppression. In the canonical TGF-beta pathway, ZFYVE9/SARA recruits the intracellular signal transducer and transcriptional modulators SMAD2 and SMAD3 to the TGF-beta receptor. Phosphorylated by the receptor, SMAD2 and SMAD3 then form a heteromeric complex with SMAD4 that translocates to the nucleus to regulate transcription. Through interaction with SMAD2 and SMAD3, LDLRAD4 may compete with ZFYVE9 and SMAD4 and prevent propagation of the intracellular signal (PubMed: 20129061 , PubMed: 24627487). Also involved in down-regulation of the androgen receptor (AR), enhancing ubiquitination and proteasome- mediated degradation of AR, probably by recruiting NEDD4 (PubMed: 18703514).

Cellular Location	Early endosome membrane; Single-pass membrane protein. Golgi apparatus membrane; Single-pass membrane protein
Tissue Location	Highest expression in prostate. Also expressed in ovary

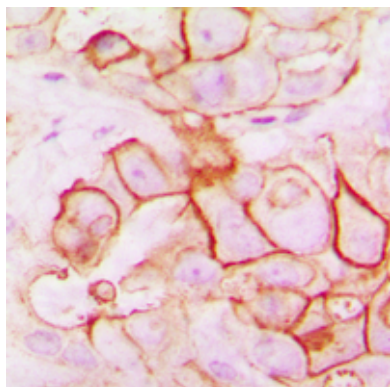
References

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Rae F.K.,et al.Mol. Carcinog. 32:44-53(2001).
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Deloukas P.,et al.Nature 414:865-871(2001).
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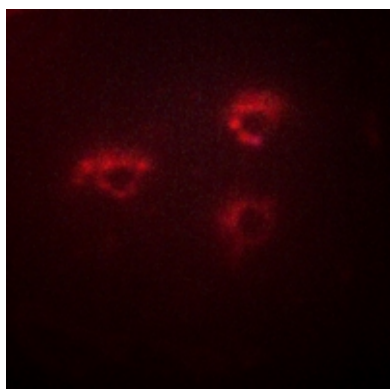
Images



Western blot analysis of PMEPA1 expression in LOVO (A), mouse liver (B) whole cell lysates. (Predicted band size: 31 kD; Observed band size: 32 kD)



Immunohistochemical analysis of PMEPA1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of PMEPA1 staining in HuvEc cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF594-conjugated secondary antibody (red) in PBS at room temperature in the dark.