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

ERG25 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13954b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q15800
Other Accession	NP_006736.1, NP_001017369.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB26243
Calculated MW	35216
Antigen Region	264-293

Additional Information

Gene ID	6307
Other Names	Methylsterol monooxygenase 1, C-4 methylsterol oxidase, MSMO1, DESP4, ERG25, SC4MOL
Target/Specificity	This ERG25 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 264-293 amino acids from the C-terminal region of human ERG25.
Dilution	WB~~1:1000 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	ERG25 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MSMO1
Synonyms	DESP4, ERG25, SC4MOL
Function	Catalyzes the three-step monooxygenation required for the demethylation

	of 4,4-dimethyl and 4alpha-methylsterols, which can be subsequently metabolized to cholesterol (PubMed:21285510, PubMed:23583456, PubMed:26114596, PubMed:28673550, PubMed:36958722). Also involved in drug metabolism, as it can metabolize eldecalcitol (ED-71 or 1alpha,25-dihydroxy-2beta-(3-hydroxypropoxy)- cholecalciferol), a second-generation vitamin D analog, into 1alpha,2beta,25-trihydroxy vitamin D3; this reaction occurs via enzymatic hydroxylation and spontaneous O-dehydroxypropylation (PubMed:26038696).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein

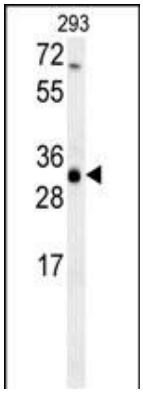
Background

Sterol-C4-mehtyl oxidase-like protein was isolated based on its similarity to the yeast ERG25 protein. It contains a set of putative metal binding motifs with similarity to that seen in a family of membrane desaturases-hydroxylases. The protein is localized to the endoplasmic reticulum membrane and is believed to function in cholesterol biosynthesis. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.

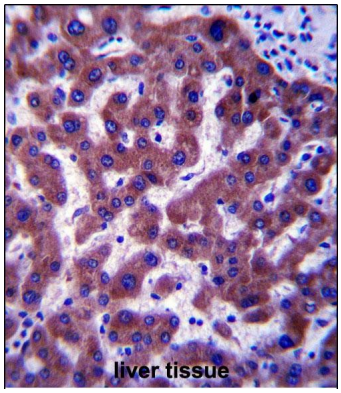
References

Lu, Y., et al. J. Lipid Res. 49(12):2582-2589(2008)
Lim, J., et al. Cell 125(4):801-814(2006)
Li, L., et al. J. Biol. Chem. 271(28):16927-16933(1996)

Images



ERG25 Antibody (C-term) (Cat. #AP13954b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the ERG25 antibody detected the ERG25 protein (arrow).



ERG25 Antibody (C-term) (Cat. #AP13954b)immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tisssue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of ERG25 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.