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

EMC1 Mouse mAb

Catalog # AP99406

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q8N766
Other Accession	Q8N766
Predicted	Rat, Human, Mouse, Rabbit, Dog
Host	Mouse
Clonality	Monoclonal
Calculated MW	111759
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human EMC1
Epitope Specificity	101-200/993
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the EMC1 family.
SUBUNIT	Component of the ER membrane protein complex (EMC).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Protoporphyrinogen oxidase, the penultimate enzyme in the heme biosynthetic pathway, catalyzes the 6-electron oxidation of protoporphyrinogen IX to form protoporphyrin IX. The PPOX protein localizes to the inner membrane of mitochondria from various tissues, including heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Genetic deficiency of PPOX results in variegate porphyria, a low penetrance, autosomal dominant disorder characterized by cutaneous photosensitivity and/or various neurological manifestations. The rare homozygous variant of VP is characterized by severe PPOX deficiency, and results in the onset of photosensitization by porphyrins in early childhood, skeletal abnormalities of the hand, and, less constantly, short stature, mental retardation and convulsions.

Additional Information

Gene ID	23065
Other Names	CAVIPMR; KIAA0090; 2700016F22Rik; EMC1_HUMAN; EMC1; EMC1_MOUSE; ER membrane protein complex subunit 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	EMC1
Synonyms	KIAA0090
Function	Part of the endoplasmic reticulum membrane protein complex (EMC) that enables the energy-independent insertion into endoplasmic reticulum membranes of newly synthesized membrane proteins (PubMed:29242231, PubMed:29809151, PubMed:30415835, PubMed:32439656, PubMed:32459176). Preferentially accommodates proteins with transmembrane domains that are weakly hydrophobic or contain destabilizing features such as charged and aromatic residues (PubMed:29242231, PubMed:29809151, PubMed:30415835). Involved in the cotranslational insertion of multi-pass membrane proteins in which stop-transfer membrane-anchor sequences become ER membrane spanning helices (PubMed:29809151, PubMed:30415835). It is also required for the post-translational insertion of tail-anchored/TA proteins in endoplasmic reticulum membranes (PubMed:29242231, PubMed:29809151). By mediating the proper cotranslational insertion of N-terminal transmembrane domains in an N-exo topology, with translocated N- terminus in the lumen of the ER, controls the topology of multi-pass membrane proteins like the G protein-coupled receptors (PubMed:30415835). By regulating the insertion of various proteins in membranes, it is indirectly involved in many cellular processes (Probable).
Cellular Location	Endoplasmic reticulum membrane; Single-pass type I membrane protein

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