

CANX | Calnexin Mouse mAb

Catalog # AP100289

Product Information

Application	WB, IHC-P, IF, IP, E
Primary Accession	P27824
Other Accession	P27824
Predicted	Rat, Human, Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	67568
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CANX
Epitope Specificity	1-100/592
Isotype	IgG2a, κ
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 calreticulin family.
SUBUNIT	Interacts with MAPK3/ERK1. Interacts with KCNH2. Associates with ribosomes. Interacts with SGIP1; involved in negative regulation of endocytosis (By similarity). The palmitoylated form interacts with the ribosome-translocon complex component SSR1, promoting efficient folding of glycoproteins.
Post-translational modifications	Phosphorylated at Ser-564 by MAPK3/ERK1. phosphorylation by MAPK3/ERK1 increases its association with ribosomes (By similarity). br>Palmitoylation by DHHC6 leads to the preferential localization to the perinuclear rough ER. It mediates the association of calnexin with the ribosome-translocon complex (RTC) which is required for efficient folding of glycosylated proteins.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the calnexin family of molecular chaperones. The encoded protein is a calcium-binding, endoplasmic reticulum (ER)-associated protein that interacts transiently with newly synthesized N-linked glycoproteins, facilitating protein folding and assembly. It may also play a central role in the quality control of protein folding by retaining incorrectly folded protein subunits within the ER for degradation. Alternatively spliced transcript variants encoding the same protein have been described. [provided by RefSeq]

Additional Information

Gene ID	821
Other Names	CNX; IP90; P90; 1110069N15Rik; D11Ert153e; PP90; CALX_CANLF; CANX; CALX_HUMAN; Major histocompatibility complex class I antigen-binding protein p88; CALX_MOUSE; CALX_RAT; calnexin
Dilution	WB=1:500-2000,IHC-P=1:100-500,IF=1:100-500,IP=1:20-100,ELISA=1:30-3000

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.
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Protein Information

Name	CANX
Function	Calcium-binding protein that interacts with newly synthesized monoglucosylated glycoproteins in the endoplasmic reticulum. It may act in assisting protein assembly and/or in the retention within the ER of unassembled protein subunits. It seems to play a major role in the quality control apparatus of the ER by the retention of incorrectly folded proteins. Associated with partial T-cell antigen receptor complexes that escape the ER of immature thymocytes, it may function as a signaling complex regulating thymocyte maturation. Additionally it may play a role in receptor-mediated endocytosis at the synapse.
Cellular Location	Endoplasmic reticulum membrane; Single-pass type I membrane protein. Mitochondrion membrane {ECO:0000250 UniProtKB:P24643}; Single-pass type I membrane protein. Melanosome membrane; Single-pass type I membrane protein. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:12643545, PubMed:17081065). The palmitoylated form preferentially localizes to the perinuclear rough ER (PubMed:22314232) Localizes to endoplasmic reticulum mitochondria-associated membrane (MAMs) that connect the endoplasmic reticulum and the mitochondria (By similarity). {ECO:0000250 UniProtKB:P24643, ECO:0000269 PubMed:12643545, ECO:0000269 PubMed:17081065, ECO:0000269 PubMed:22314232}

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