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

KDEL Receptor Rabbit pAb

KDEL Receptor Rabbit pAb
Catalog # AP56471

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P24390
Predicted	Human, Mouse, Rat, Horse, Sheep, Xenopus
Host	Rabbit
Clonality	Polyclonal
Calculated MW	24542
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human KDEL Receptor
Epitope Specificity	151-212/212
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasmic vesicle, COPI-coated vesicle membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Endoplasmic reticulum-Golgi intermediate compartment membrane.
SIMILARITY	Belongs to the ERD2 family.
SUBUNIT	Upon ligand binding the receptor oligomerizes and interacts with components of the transport machinery such as ARFGAP1 and ARF1.
Post-translational modifications	Phosphorylation by PKA at Ser-209 is required for endoplasmic reticulum retention function.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Retention of resident soluble proteins in the lumen of the endoplasmic reticulum (ER) is achieved in both yeast and animal cells by their continual retrieval from the cis-Golgi, or a pre-Golgi compartment. Sorting of these proteins is dependent on a C-terminal tetrapeptide signal, usually lys-asp-glu-leu (KDEL) in animal cells, and his-asp-glu-leu (HDEL) in S. cerevisiae. This process is mediated by a receptor that recognizes, and binds the tetrapeptide-containing protein, and returns it to the ER. In yeast, the sorting receptor encoded by a single gene, ERD2, which is a seven-transmembrane protein. Unlike yeast, several human homologs of the ERD2 gene, constituting the KDEL receptor gene family, have been described. The protein encoded by this gene was the first member of the family to be identified, and it encodes a protein structurally and functionally similar to the yeast ERD2 gene product.

Additional Information

Gene ID	10945
Other Names	ER lumen protein-retaining receptor 1, KDEL endoplasmic reticulum protein

	retention receptor 1, KDEL receptor 1, Putative MAPK-activating protein PM23, KDELR1, ERD2.1
Dilution	WB=1:500-2000,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	KDELR1
Synonyms	ERD2.1
Function	Receptor for the C-terminal sequence motif K-D-E-L that is present on endoplasmic reticulum resident proteins and that mediates their recycling from the Golgi back to the endoplasmic reticulum.
Cellular Location	Golgi apparatus membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P33946}. Cytoplasmic vesicle, COPI-coated vesicle membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P33946}. Endoplasmic reticulum membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P33946}. Endoplasmic reticulum-Golgi intermediate compartment membrane {ECO:0000250|UniProtKB:P33946}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P33946} Note=Localized in the Golgi in the absence of bound proteins with the sequence motif K-D-E-L. Trafficks back to the endoplasmic reticulum together with cargo proteins containing the sequence motif K-D-E-L

Background

Retention of resident soluble proteins in the lumen of the endoplasmic reticulum (ER) is achieved in both yeast and animal cells by their continual retrieval from the cis-Golgi, or a pre-Golgi compartment. Sorting of these proteins is dependent on a C-terminal tetrapeptide signal, usually lys-asp-glu-leu (KDEL) in animal cells, and his-asp-glu-leu (HDEL) in S. cerevisiae. This process is mediated by a receptor that recognizes, and binds the tetrapeptide-containing protein, and returns it to the ER. In yeast, the sorting receptor encoded by a single gene, ERD2, which is a seven-transmembrane protein. Unlike yeast, several human homologs of the ERD2 gene, constituting the KDEL receptor gene family, have been described. The protein encoded by this gene was the first member of the family to be identified, and it encodes a protein structurally and functionally similar to the yeast ERD2 gene product.