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DERLIN-1 Rabbit pAb

Catalog # AP99378

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9BUN8
Other Accession	Q9BUN8
Reactivity	Human
Predicted	Rat, Mouse, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	28801
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DERLIN-1
Epitope Specificity	111-220/251
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 derlin family.
SUBUNIT	Forms homo- and heterooligomers with DERL2 and DERL3; binding to DERL3 is poorer than that between DERL2 and DERL3. Interacts with AMFR, VIMP/SELS, SEL1L, SYVN1 and VCP, as well as with SEL1L-SYVN1 and VCP-VIMP protein complexes; this interaction is weaker than that observed between DERL2 and these complexes. Interacts with the cytomegalovirus US11 protein. Interacts with NGLY1 and YOD1. Does not bind to EDEM1. Interacts with RNF103.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Degradation in endoplasmic reticulum proteins, also designated Derlins or DERtrins, are crucial for the degradation of misfolded endoplasmic reticulum (ER) luminal proteins. Derlin proteins are multi-pass membrane proteins localizing to the ER. Derlins are involved in transferring misfolded proteins from the ER to the cytosol, where the misfolded proteins are destroyed in an ubiquitin-dependent manner by the proteasome. In the case of cytomegalovirus infection, Derlin-1, as opposed to Derlins-2 and -3, is involved in the export of MHC class I heavy chains from the ER via its interaction with the viral protein US11. Derlins may also be important for cell proliferation.

Additional Information

Gene ID	79139
Other Names	derlin-1; DER-1; DER1; 1110021N07Rik; RGD1311835; DERL1_BOVIN; DERL1; Der1-like protein 1; DERL1_HUMAN; Degradation in endoplasmic reticulum protein 1 (DERtrin-1); DERL1_MOUSE; Degradation in endoplasmic reticulum protein 1; derlin 1; Der1-like domain family, member 1

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	DERL1 (HGNC:28454)
Synonyms	DER1
Function	Functional component of endoplasmic reticulum-associated degradation (ERAD) for misfolded lumenal proteins (PubMed:15215856, PubMed:33658201). Forms homotetramers which encircle a large channel traversing the endoplasmic reticulum (ER) membrane (PubMed:33658201). This allows the retrotranslocation of misfolded proteins from the ER into the cytosol where they are ubiquitinated and degraded by the proteasome (PubMed:33658201). The channel has a lateral gate within the membrane which provides direct access to membrane proteins with no need to reenter the ER lumen first (PubMed:33658201). May mediate the interaction between VCP and the misfolded protein (PubMed:15215856). Also involved in endoplasmic reticulum stress-induced pre-emptive quality control, a mechanism that selectively attenuates the translocation of newly synthesized proteins into the endoplasmic reticulum and reroutes them to the cytosol for proteasomal degradation (PubMed:26565908). By controlling the steady-state expression of the IGF1R receptor, indirectly regulates the insulin-like growth factor receptor signaling pathway (PubMed:26692333).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein
Tissue Location	Ubiquitous.

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