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

DERL1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8745b

Specification

DERL1 Antibody (C-term) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	Q9BUN8
Other Accession	Q99J56, Q71SS4
Reactivity	**Human, Mouse**
Predicted	**Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**28801**
Antigen Region	**224-251**

DERL1 Antibody (C-term) - Additional Information

Gene ID 79139

Other Names
Derlin-1, Degradation in endoplasmic reticulum protein 1, DERtrin-1, Der1-like protein 1, DERL1, DER1

Target/Specificity
This DERL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 224-251 amino acids from the C-terminal region of human DERL1.

Dilution
WB~~1:16000
IHC-P~~1:50~100
FC~~1:10~50

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
DERL1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

DERL1 Antibody (C-term) - 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

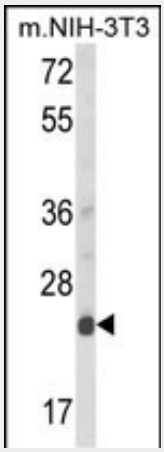
Tissue Location
Ubiquitous.

DERL1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

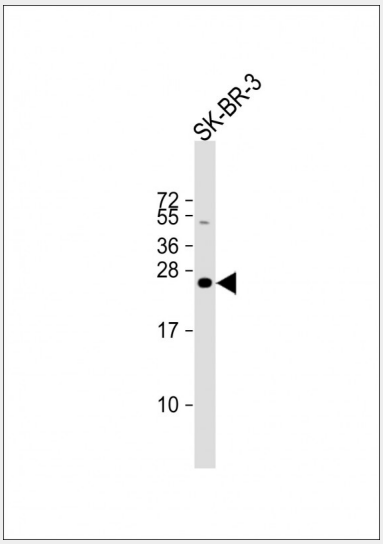
DERL1 Antibody (C-term) - Images



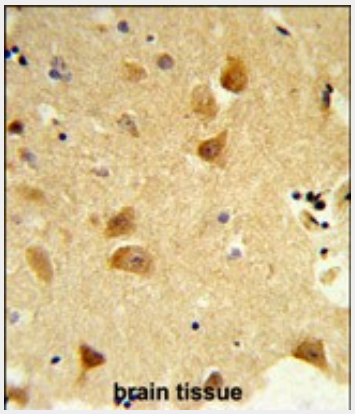
Western blot analysis of DERL1 Antibody (C-term) (Cat. #AP8745b) in mouse NIH-3T3 cell line

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

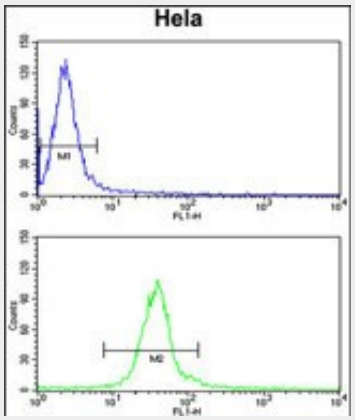
lysates (35ug/lane). DERL1 (arrow) was detected using the purified Pab.



Anti-DERL1 Antibody (C-term) at 1:16000 dilution + SK-BR-3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 29 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human brain tissue reacted with DERL1 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



DERL1 Antibody (C-term) (Cat.#AP8745b) flow cytometry analysis of Hela cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit

secondary antibodies were used for the analysis.

DERL1 Antibody (C-term) - Background

Functional component of endoplasmic reticulum-associated degradation (ERAD) for misfolded lumenal proteins. DERL1 may act by forming a channel that allows the retrotranslocation of misfolded proteins into the cytosol where they are ubiquitinated and degraded by the proteasome. It may mediate the interaction between VCP and the degradation substrate. In case of infection by cytomegaloviruses, it plays a central role in the export from the ER and subsequent degradation of MHC class I heavy chains via its interaction with US11 viral protein, which recognizes and associates with MHC class I heavy chains. Also participates in the degradation process of misfolded cytomegalovirus US2 protein.

DERL1 Antibody (C-term) - References

Oda Y., et.al., J. Cell Biol. 172:383-393(2006). Ye Y., et.al., Proc. Natl. Acad. Sci. U.S.A. 102:14132-14138(2005).