abcam

Product datasheet

Anti-KDEL antibody ab2898

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Overview

Product name	Anti-KDEL antibody
Description	Rabbit polyclonal to KDEL
Host species	Rabbit
Tested applications	**Suitable for:** IP, WB, ICC/IF, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Hamster, Human **Does not react with:** African green monkey
Immunogen	Synthetic peptide corresponding to Rat KDEL aa 643-654. Sequence: TGEEDTSEKDEL Run BLAST with Run BLAST with
General notes	This antibody can be used as an endoplasmic reticulum (ER) marker.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituent: 99% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab2898** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
WB		Use a concentration of 16 µg/ml.
ICC/IF		Use at an assay dependent concentration.
IHC-P	★★★★☆	Use at an assay dependent concentration.

Target

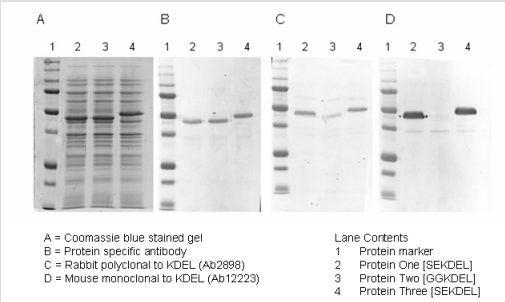
Relevance

The sequence Lys-Asp-Glu-Leu (KDEL) or a closely related sequence, is present at the carboxy-terminus of soluble endoplasmic reticulum (ER) resident proteins and some membrane proteins. 78 and 94 kDa glucose regulated proteins (GRP 78) and GRP 94 respectively and protein disulfide isomerase (PDI) all share the C-terminal KDEL sequence. The presence of carboxy-terminal KDEL appears to be necessary for ER retention and appears to be sufficient to reduce the secretion of proteins from the ER. This retention is reported to be mediated by a KDEL receptor.

Cellular localization

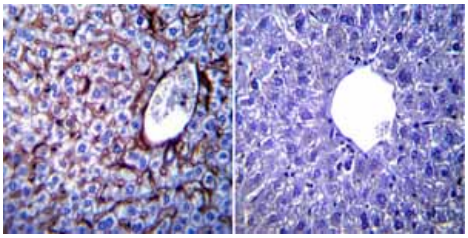
Endoplasmic reticulum

Images



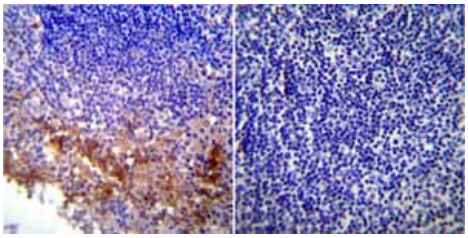
Western blot - Anti-KDEL antibody (ab2898)

Three constructs were generated (denoted protein one to three). Proteins 1 and 2 end in SEKDEL as the C-terminal sequence. Protein two is an original construct which ends in GGKDEL. These were expressed and separated on a 12% SDS-PAGE, blotted to PVDF and blocked with 4% milk in TBS/0.1% tween. The replicates were then treated with either a specific antibody for the expressed protein (B), the KDEL antibody - ER Marker (ab2898) or KDEL antibody [10C3] - ER Marker (ab12223). A secondary antibody conjugated to alkaline phosphatase was used to detect the primary. The Coomassie stained gel indicates the location and expression levels of the three proteins. The specific antibody confirms the bands as the proteins of interest. KDEL antibody [10C3] - ER Marker (ab12223) recognizes proteins ending in the SEKDEL sequence and does not recognize the GGKDEL sequence as detected by KDEL antibody - ER Marker (ab2898).



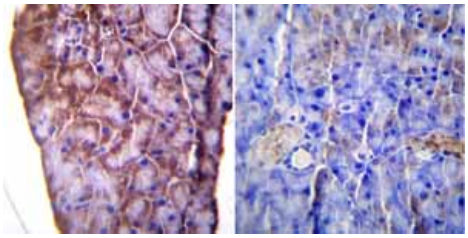
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KDEL antibody (ab2898)

Immunohistochemistry was performed on normal biopsies of deparaffinized Mouse liver tissue. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:100 with a rabbit polyclonal antibody recognizing KDEL ab2898 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KDEL antibody (ab2898)

Immunohistochemistry was performed on normal biopsies of deparaffinized Mouse lymph node tissue. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:200 with a rabbit polyclonal antibody recognizing KDEL ab2898 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KDEL antibody (ab2898)

Immunohistochemistry was performed on normal biopsies of deparaffinized Mouse pancreas tissue. To expose target proteins heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:100 with a rabbit polyclonal antibody recognizing KDEL ab2898 or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.

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