Product Datasheet

KDEL Rabbit mAb

Catalog No: #49864

Package Size: #49864-1 50ul #49864-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

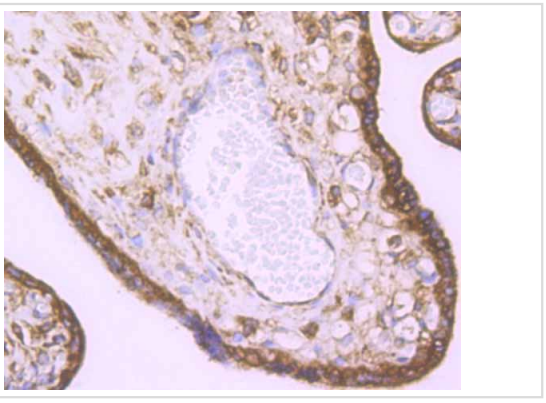
Description

Product Name	KDEL Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	JB42-04
Purification	ProA affinity purified
Applications	WB,ICC,IF,IHC,FC
Species Reactivity	Human;Mouse;Rat
Immunogen Description	Recombinant protein
Conjugates	Unconjugated
Other Names	ER lumen protein retaining receptor 1 antibody ERD2.1 antibody ERD21_HUMAN antibody KDEL endoplasmic reticulum protein retention receptor 1 antibody KDEL receptor 1 antibody Kdelr1 antibody Putative MAPK-activating protein PM23 antibody
Accession No.	Swiss-Prot#:P24390
Calculated MW	24/17 kDa(Predicted band size)
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

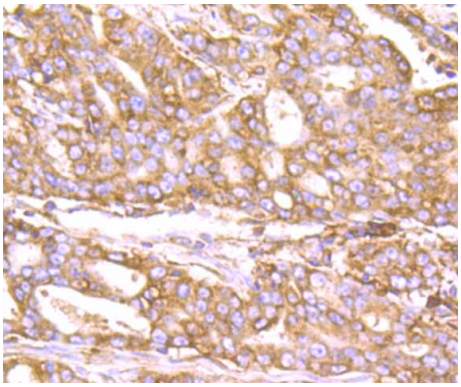
Application Details

WB: 1:500-1:2000 IHC: 1:100-1:400 ICC: 1:400-1:800FC: 1:50-1:100

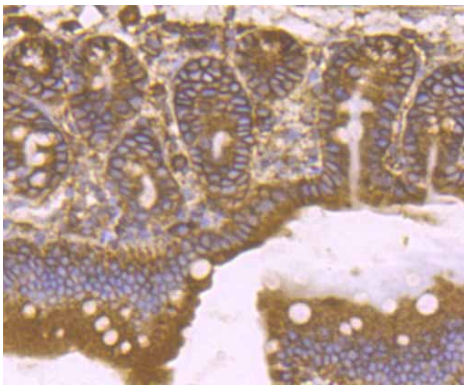
Images



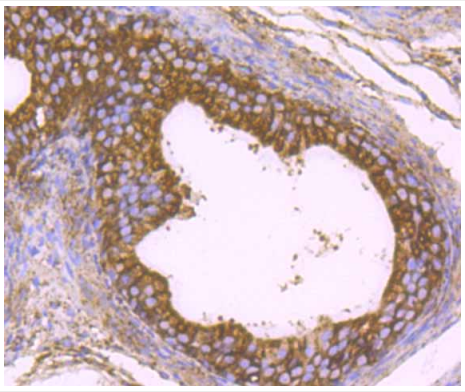
Immunohistochemical analysis of paraffin-embedded human placenta tissue using anti-KDEL antibody. Counter stained with hematoxylin.



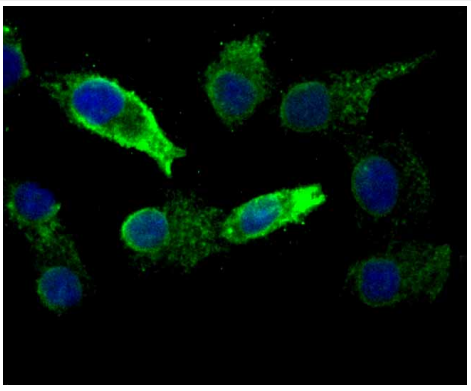
Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue using anti-KDEL antibody. Counter stained with hematoxylin.



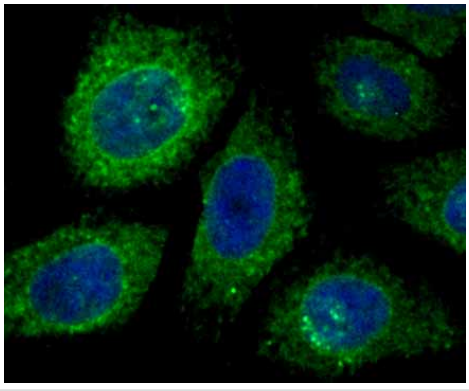
Immunohistochemical analysis of paraffin-embedded mouse small intestine tissue using anti-KDEL antibody. Counter stained with hematoxylin.



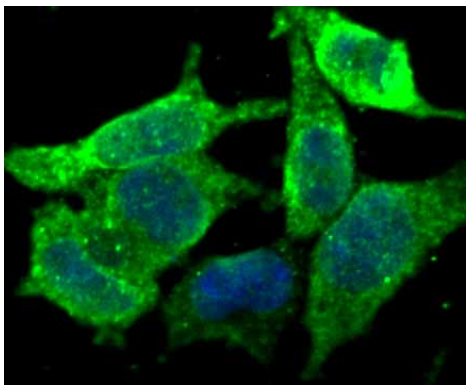
Immunohistochemical analysis of paraffin-embedded rat epididymis tissue using anti-KDEL antibody. Counter stained with hematoxylin.



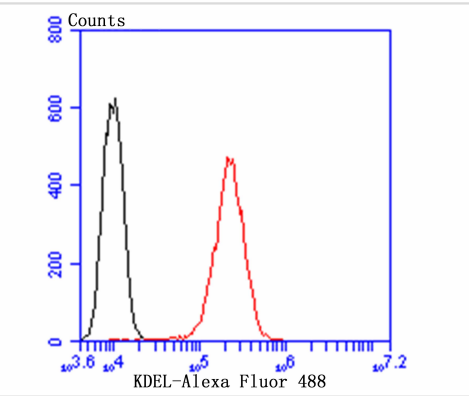
ICC staining KDEL in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining KDEL in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining KDEL in 293T cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Flow cytometric analysis of HepG2 cells with KDEL antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.

Background

Soluble proteins in the endoplasmic reticulum (ER) contain a specific carboxy terminal sequence KDEL (Lys-Asp-Glu-Leu), and include the coat proteins required for vesicle budding from the ER, proteins that form retrograde vesicles on post-ER compartments, and integral membrane proteins that target vesicles to their correct destination. The retention of these soluble proteins in the ER depends on the interaction of the KDEL sequence with the corresponding KDEL receptor, also designated ERD2, in the Golgi apparatus. When KDEL proteins reach the Golgi complex, they are recognized by the KDEL receptor and transported retrograde in COPI-coated vesicles back to the ER. The small GTPase ADP-ribosylation factor 1 (ARF1), a regulator of vesicle transport, interacts with the KDEL receptor. Subsequently, this interaction allows the KDEL receptor to recruit a GTPase-activating protein (GAP) from the cytosol to membranes, which inactivates ARF1.

References

1. Majoul I et al. KDEL-cargo regulates interactions between proteins involved in COPI vesicle traffic: measurements in living cells using FRET. Dev Cell 1:139-153 (2001). 2. Cabrera M et al. The retrieval function of the KDEL receptor requires PKA phosphorylation of its C-terminus. Mol Biol Cell 14:4114-4125 (2003).

Published Papers

Lei Chen;Xia Zhao;Rui Sheng;Philip Lazarovici;Wenhua Zheng el at., Artemisinin alleviates astrocyte overactivation and neuroinflammation by modulating the IRE1/NF-κB signaling pathway in in vitro and in vivo Alzheimer's disease models., , (2025)

PMID:39826816

Note: This product is for in vitro research use only and is not intended for use in humans or animals.