

# Produktinformation



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# Anti-KDEL Receptor Antibody [KR-10]

Mouse Anti-Bovine KDEL Receptor Monoclonal IgG1 Catalog No. SMC-129



## **Overview**

#### **Product Name**

**KDEL Receptor Antibody** 

#### Description

Mouse Anti-Bovine KDEL Receptor Monoclonal IgG1

#### **Species Reactivity**

Dog, Human, Monkey, Mouse, Rat, African clawed frog (Xenopus laevis), Bovine, Chicken, Fruit Fly (Drosophila melanogaster), Hamster, Pig, Rabbit, Sheep

#### Applications

WB, IHC, ICC/IF, IP

#### **Antibody Dilution**

WB (1:1000), ICC/IF (1:1000); optimal dilutions for assays should be determined by the user.

#### **Host Species**

Mouse

#### Immunogen Species

Bovine

#### Immunogen

A 21 residue synthetic peptide (amino acids 192-212) based on the bovine KDEL receptor and the peptide coupled to KLH

#### Concentration

1 mg/ml

#### Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

#### **Properties**

#### **Storage Buffer**

PBS pH7.2, 50% glycerol, 0.09% sodium azide

#### Storage Temperature

-20°C

#### Shipping Temperature

Blue Ice or 4°C

Purification

Protein G Purified
Clonality
Monoclonal
Clone Number
KR-10
Isotype
lgG1
Specificity
Detects ~25kDa.
Cite This Product

Mouse Anti-Bovine KDEL Receptor Monoclonal, Clone KR-10 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-129)

#### **Certificate Of Analysis**

 $1 \mu g/ml$  was sufficient for detection of KDEL receptor in 20  $\mu g$  monkey Vero cell lysate by colorimetric immunoblot analysis using Goat Anti-Mouse IgG:AP as the secondary.

# **Biological Description**

#### **Alternative Names**

ERD2 Antibody, ERD2.1 Antibody, ERD21 Antibody, HDEL Antibody, KDEL Antibody, KDEL R1 Antibody, KDELR1 Antibody, PM23 Antibody

Research Areas
Cell Signaling, Chaperones, Organelle Markers, Trafficking
Cellular Localization
Endoplasmic Reticulum
Accession Number
NP_598711.1
Gene ID
68137
Swiss Prot
Q99JH8

#### Scientific Background

The endoplasmic reticulum is part of a protein sorting pathway, or in essence, the transportation system of the eukaryotic cell. The majority of endoplasmic reticulum resident proteins are retained in the endoplasmic reticulum through a retention motif. This motif is composed of four amino acids at the C-terminal end of the protein sequence. The most common retention sequence is KDEL (lys-asp-glu-leu). However, variation on KDEL does occur and other sequences can also give rise to endoplasmic reticulum retention (6). There are three KDEL receptors in mammalian cells, all have a very high degree of sequence identity; and all are located within the cis-Golgi and its intermediate compartments (4).

In terms of function, KDEL receptors interact with GAP (GTPase-activating protein) of ARF1, which is involved in COPI dependent vesicle transport, and the KDEL receptor may also be responsible for the recruitment of this ARF1 to membranes which can then aid in the regulation of vesicle budding (3). It is also important to note that the KDEL receptor exhibits extensive sequence identity o yeast protein Erd2p, which is a receptor for the yeast ER retention signal (4, 5).

#### References

1. Whiteman P., and Handford P.A. (2003) Hum Mol Genet 12(7): 727-737.

2. Forthoffer N., et al. (2002) J Bioenerg Biomemb 34(3): 209-219.

3. Aoe T., et al. (1997) EMBO J. 16: 7305-7316.

- 4. Tang B.L., Wong S.H, Qi X.L. Low S.H., and Hong W. (1993) J. Cell Biol. 120: 325-328.
- 5. Lewis M.J. and Pelham H.R. (1990) Nature 348: 162-163.

6. Spurger L. (2002). Endoplasmic reticulum: Structure and function. University of Texas Medical Branch. Retrieved September 13, 2006, from http://cellbio.utmb.edu/cellbio/rer1.htm

## **Product Images**



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-KDEL Receptor Monoclonal Antibody, Clone KR-10 (SMC-129). Tissue: NRK cells. Species: Rat. Primary Antibody: Mouse Anti-KDEL Receptor Monoclonal Antibody (SMC-129) at 1:1000. Secondary Antibody: APC Goat Anti-Mouse (red). Counterstain: DAPI (blue) nuclear stain. Courtesy of: Institute of Mol. and Cell Bio, Singapore.

79.68→	
48.33→	
37.81→	
23.27→ 18.19→	
14.17→	

Western Blot analysis of Rat tissue lysate showing detection of KDEL Receptor protein using Mouse Anti-KDEL Receptor Monoclonal Antibody, Clone KR-10 (SMC-129). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-KDEL Receptor Monoclonal Antibody (SMC-129) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

## **Product Citations (0)**

Currently there are no citations for this product.

#### Reviews

There are no reviews yet.