

## ERD 2

Cat.No. 210 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

### Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: yes ICC: 1 : 100 IHC: 1 : 200 IHC-P/FFPE: not tested yet
Immunogen	Synthetic peptide corresponding to AA 192 to 212 from rat ERD2 (UniProt Id: Q569A6)
Reactivity	Reacts with: human (P24390, P33947), rat (Q569A6, Q5U305), mouse (Q99JH8, Q9CQM2), monkey, cow, dog. Other species not tested yet.
Specificity	Recognizes Erd 1 and Erd 2.

### Selected General References

KDEL-cargo regulates interactions between proteins involved in COPI vesicle traffic: measurements in living cells using FRET.  
 Majoul I, Straub M, Hell SW, Duden R, Söling HD  
*Developmental cell* (2001) 1(1): 139-53.

KDEL motif interacts with a specific sequence in mammalian Erd2 receptor.  
 Janson IM, Toomik R, O'Farrell F, Ek P  
*Biochemical and biophysical research communications* (1998) 247(2): 447-51.

KDEL receptor (Erd2p)-mediated retrograde transport of the cholera toxin A subunit from the Golgi involves COPI, p23, and the COOH terminus of Erd2p.  
 Majoul I, Sohn K, Wieland FT, Pepperkok R, Pizza M, Hillemann J, Söling HD  
*The Journal of cell biology* (1998) 143(3): 601-12.

The KDEL receptor, ERD2, regulates intracellular traffic by recruiting a GTPase-activating protein for ARF1.  
 Aoe T, Cukierman E, Lee A, Cassel D, Peters PJ, Hsu VW  
*The EMBO journal* (1997) 16(24): 7305-16.

The ERD2 gene determines the specificity of the luminal ER protein retention system.  
 Lewis MJ, Sweet DJ, Pelham HR  
*Cell* (1990) 61(7): 1359-63.

### TO BE USED IN VITRO / FOR RESEARCH ONLY

NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Retrograde Golgi-to-ER transport by COP 1 coated vesicles serves the recycling of escaped ER-proteins that carry the C-terminal KDEL signal. The KDEL-receptor **Erd 2** binds to this signal and retrieves it to the ER. Once returned the Erd 2-ligand complex dissociates and releases Erd 2 for additional recycling rounds.