

## 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	<b>WB:</b> 1 : 1000 (AP staining) <b>IP:</b> yes <b>ICC:</b> 1 : 100 <b>IHC:</b> 1 : 200 <b>IHC-P/FFPE:</b> 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.

**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.

### 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.