Revision 3

Store at -20C

#2884

ERC1 (P85) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	130, 120	Rabbit	#Q8IUD2	23085

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

ERC1 (P85) Antibody detects endogenous levels of ERC1 protein. Both α and β isoforms of ERC1 are detected.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys86 of human ERC1 protein. Antibodies are purified by peptide affinity chromatography.

Background

ERC1, an acronym named for previous protein names ELKS (1), RAB6IP2 (2) and CAST (3), is a RIM-binding protein that plays a role in neurotransmitter release and general membrane trafficking in other cell types (2-5). Interaction with the GTP-binding protein Rab6 suggests that it contributes to membrane traffic at the Golgi (2). In addition to its association with membrane trafficking, ERC1 has also been found as an essential part of the IκB kinase (IKK) complex required for the activation of NF-κB, perhaps by recruiting IκBα to the IKK complex (6). Alternative splicing of ERC1 generates 2 proteins with a divergent carboxy terminus, a long and a short form termed ERC1α and ERC1β, respectively. ERC1α is widely expressed, whereas ERC1β and a related family member ERC2 are expressed in the brain (4). Papillary thyroid carcinomas have been identified with the translocation t(10;12)(p11;p13) resulting in a fusion between ERC1 and the receptor tyrosine kinase Ret (1).

Background References

1. Nakata, T. et al. (1999) *Genes Chromosomes Cancer* 25, 97-103.
2. Monier, S. et al. (2002) *Traffic* 3, 289-97.
3. Ohtsuka, T. et al. (2002) *J Cell Biol* 158, 577-90.
4. Wang, Y. et al. (2002) *Proc Natl Acad Sci USA* 99, 14464-9.
5. Ohara-Imaizumi, M. et al. (2005) *Mol Biol Cell* 16, 3289-300.
6. Ducut Sigala, J.L. et al. (2004) *Science* 304, 1963-7.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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Limited Uses

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