Revision 1

Store at -20C

#4716

RACK1 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	H M R Dm Z	Endogenous	32	Rabbit	#P63244	10399

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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

RACK1 Antibody recognizes endogenous levels of total RACK1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to human RACK1. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The highly conserved receptor for activated C kinase 1 (RACK1), homologous to the β subunit of heterotrimeric G-proteins, was originally identified through its binding of active PKCβII and other classical PKC isoforms (1). RACK1 is a scaffold protein that recruits PKC and a wide range of other proteins to specific subcellular locations, promoting the formation of multiprotein complexes to induce and integrate various signaling pathways (reviewed in 2). One example of this is its enhancement of PKC-dependent JNK activation (3). RACK1 protein also resides in the eukaryotic ribosome, suggesting the possibility that RACK1 participates in the assembly of signaling complexes that regulate translation as well (reviewed in 4). RACK1 binds the SH2 domain of Src, and phosphorylation of RACK1 by Src occurs at Tyr228 after PKC activation (5).

Background References

1. Ron, D. et al. (1994) *Proc Natl Acad Sci U S A* 91, 839-43.
2. López-Bergami, P. et al. (2005) *Mol Cell* 19, 309-20.
3. McCahill, A. et al. (2002) *Mol Pharmacol* 62, 1261-73.
4. Nilsson, J. et al. (2004) *EMBO Rep* 5, 1137-41.
5. Chang, B.Y. et al. (2002) *Oncogene* 21, 7619-29.

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

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Dm:** D. melanogaster **Z:** Zebrafish

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