anti-RACK1

Cat #: HM1301
Mouse monoclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND
Protein kinase C (PKC) family proteins play a key regulatory role in a variety of cellular functions including cell growth and differentiation. RACKs (receptor for activated C kinases) are intracellular receptors for activated PKC that may be involved in the activation-induced translocation of PKC. RACK-1 has a molecular mass of 36,000 and is composed of seven WD repeats, thus resembling the structure of the ß subunit of G proteins (Gß). RACK-1 also associates with other proteins, including Src kinase where it inhibits kinase function. RACK-1 interacts with ß integrin subunit cytoplasmic domain, directly linking RACK-1 to integrin function. In addition, RACK-1 has been shown to interact with the cAMP-specific phosphodiesterase PDE4D5 isoform, where it is proposed to recruit other proteins to a signaling complex.

SPECIFICITY
This antibody specifically reacts with RACK1 of human, mouse and rat origin.

The antibody can be used in Western blotting, immunoprecipitiation and immunohistochemistry.

IMMUNOGEN
A synthetic peptide derived from N-terminus of human RACK1 protein.

STORAGE
This antibody is stable for 12 months when stored at 2-8°C.

REFERENCES
1. Mochly-Rosen, D., Khaner, H., and Lopez, J. 1991. Identification of intracellular receptor proteins for activated protein kinase C. Proc. Natl. Acad. Sci. USA 88: 3997-4000.
2. Ron, D., Chen, C.H., Caldwell, J., Jamieson, L., Orr, E., and Mochly-Rosen, D. 1994. Cloning of an intracellular receptor for protein kinase C: a homolog of the beta subunit of G proteins. Proc. Natl. Acad. Sci. USA 91: 839-843.
3. Chang, B.Y., Conroy, K.B., Machleder, E.M., and Cartwright, C.A. 1998. RACK1, a receptor for activated C kinase and a homolog of the beta subunit of G proteins, inhibits activity of src tyrosine kinases and growth of NIH 3T3 cells. Mol. Cell. Biol. 18: 3245-3256.
4. Dorit, R., Jiang, Z., Yao, L., Vagts, A., Diamond, I, and Gordon, A. 1999. Coordinated Movement of RACK1 with Activated beta II PKC. J. Biol. Chem. 274: 27039-27046.
5. Battaini, F., Pascale, A., Lucchi, L., Pasinetti, G.M., and Govoni, S. 1999. Protein kinase C anchoring deficit in postmortem brains of Alzheimer's disease patients. Exp. Neurol. 159: 559-564.
6. Koehler,J.A. and Moran,M.F. (2001) RACK1, a protein kinase C scaffolding protein, interacts with the PH domain of p120GAP. Biochem. Biophys. Res. Commun. 283, 888-895.
7. Usacheva,A., Tian,X., Sandoval,R., Salvi,D., Levy,D. and Colamonici,O.R. (2003) The WD motif-containing protein RACK-1 functions as a scaffold protein within the type I IFN receptor-signaling complex. J. Immunol. 171, 2989-2994.
8. Mamidipudi,V., Zhang,J., Lee,K.C. and Cartwright,C.A. (2004) RACK1 regulates G1/S progression by suppressing Src kinase activity. Mol. Cell. Biol. 24, 6788-6798
9. Chen,S., Dell,E.J., Lin,F., Sai,J. and Hamm,H.E. (2004) RACK1 regulates specific functions of Gbetagamma. J. Biol. Chem. 279, 17861-17868.

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