Revision 1

#6884 Store at -20C

Phospho-REPS1 (Ser709) Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H Mk	Endogenous	125	Rabbit	#Q96D71	85021

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

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

Phospho-REPS1 (Ser709) Antibody recognizes endogenous levels of REPS1 only when phosphorylated at Ser709.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser709 of human REPS1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

REPS1 is a RalBP1-associated EH-homology domain containing protein. The sequence of REPS1 has an EH domain, followed by two proline-rich segments, and a C-terminal coiled-coil domain for binding to RalBP1 (1). The EH domain of REPS1 interacts with the NPF motif of Rab11-FIP2, mediates their colocalization to endosome vesicles, and influences EGFR endocytosis (2). The two proline-rich regions of REPS1 are important for binding to the SH3 domain of GRK/GRB2 and further regulate EGFR downstream signaling. The proline-rich regions of REPS1 have also been shown to interact with the SH3 domain of intersectin1 (ITSN1) and contribute to ITSN1/SGIP1/REPS1 complex formation on clathrin-coated pits (3). Three alternatively spliced isoforms of REPS1 have been identified.
Phosphorylation of Ser709 on REPS1 was identified at Cell Signaling Technology using PTMScan® Technology, our LC-MS/MS platform for phosphorylation site discovery (4).

Background References

1. Yamaguchi, A. et al. (1997) *J Biol Chem* 272, 31230-4.
2. Cullis, D.N. et al. (2002) *J Biol Chem* 277, 49158-66.
3. Dergai, O. et al. (2010) *Biochem Biophys Res Commun* 402, 408-13.
4. Rush, J. et al. (2005) *Nat Biotechnol* 23, 94-101.

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

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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Limited Uses

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