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## IGF-I Receptor β (D23H3) XP<sup>®</sup> Rabbit mAb (PE Conjugate)



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

Applications:Reactivity:Sensitivity:Source/Isotype:UniProt ID:Entrez-Gene Id:FC-FPH M R MkEndogenousRabbit IgG#P080693480

 Product Usage Information
 Application
 Dilution

 Flow Cytometry (Fixed/Permeabilized)
 1:50

**Storage** Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibodies. Protect from light. Do not freeze.

Specificity / Sensitivity IGF-I Receptor  $\beta$  (D23H3) XP<sup>®</sup> Rabbit mAb (PE Conjugate) recognizes endogenous levels of total IGF-I receptor  $\beta$  protein. This antibody does not cross-react with insulin receptor.

**Source / Purification**Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human IGF-I receptor β protein.

**Product Description**This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-

reactivity as the unconjugated IGF-I Receptor β (D23H3) XP<sup>®</sup> Rabbit mAb #9750.

**Background**Type I insulin-like growth factor receptor (IGF-IR) is a transmembrane receptor tyrosine kinase that is

widely expressed in many cell lines and cell types within fetal and postnatal tissues (1-3). Receptor autophosphorylation follows binding of the IGF-I and IGF-II ligands. Three tyrosine residues within the kinase domain (Tyr1131, Tyr1135, and Tyr1136) are the earliest major autophosphorylation sites (4). Phosphorylation of these three tyrosine residues is necessary for kinase activation (5,6). Insulin receptors (IRs) share significant structural and functional similarity with IGF-I receptors, including the presence of an equivalent tyrosine cluster (Tyr1146/1150/1151) within the kinase domain activation loop. Tyrosine autophosphorylation of IRs is one of the earliest cellular responses to insulin stimulation (7).

Autophosphorylation begins with phosphorylation at Tyr1146 and either Tyr1150 or Tyr1151, while full

kinase activation requires triple tyrosine phosphorylation (8).

Background References 1. Adams, T.E. et al. (2000) Cell Mol Life Sci 57, 1050-93.

2. Baserga, R. (2000) *Oncogene* 19, 5574-81.

Scheidegger, K.J. et al. (2000) J Biol Chem 275, 38921-8.
 Hernández-Sánchez, C. et al. (1995) J Biol Chem 270, 29176-81.

5. Lopaczynski, W. et al. (2000) Biochem Biophys Res Commun 279, 955-60.

6. Baserga, R. (1999) Exp Cell Res 253, 1-6.

7. White, M.F. et al. (1985)  $\it J \, Biol \, Chem \, 260, \, 9470-8.$ 

8. White, M.F. et al. (1988) J Biol Chem 263, 2969-80.

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

**Applications Key** FC-FP: Flow Cytometry (Fixed/Permeabilized)

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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