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Phospho-IGF-I Receptor β (Tyr980) (C14A11) Rabbit mAb


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H M R	Endogenous	95	Rabbit IgG	#P08069	3480

Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C . Do not aliquot the antibody.	
Specificity / Sensitivity	Phospho-IGF-I Receptor β (Tyr980) (C14A11) Rabbit mAb detects endogenous levels of IGF-I β receptor protein when phosphorylated at Tyr980. The antibody may cross-react with activated insulin receptors and FLT3.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr980 of human IGF-I Receptor β .	
Background	<p>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). Tyr980 of IGF-IR appears to be important for receptor kinase activation. Located in the IGF-IR juxtamembrane region, phosphorylation of this tyrosine residue creates a docking site for the binding of downstream adaptor or docking proteins (9).</p>	
Background References	<ol style="list-style-type: none"> Adams, T.E. et al. (2000) <i>Cell Mol Life Sci</i> 57, 1050-93. Baserga, R. (2000) <i>Oncogene</i> 19, 5574-81. Scheidegger, K.J. et al. (2000) <i>J Biol Chem</i> 275, 38921-8. Hernández-Sánchez, C. et al. (1995) <i>J Biol Chem</i> 270, 29176-81. Lopaczynski, W. et al. (2000) <i>Biochem Biophys Res Commun</i> 279, 955-60. Baserga, R. (1999) <i>Exp Cell Res</i> 253, 1-6. White, M.F. et al. (1985) <i>J Biol Chem</i> 260, 9470-8. White, M.F. et al. (1988) <i>J Biol Chem</i> 263, 2969-80. Pautsch, A. et al. (2001) <i>Structure</i> 9, 955-965. 	

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
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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