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-20°C

#12004

PhosphoPlus® IGF-I Receptor β Antibody Duet



Cell Signaling
TECHNOLOGY®

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Entrez-Gene ID #3480
UniProt ID #P08069

Rev. 05/14/18

For Research Use Only. Not For Use In Diagnostic Procedures.

Products Included	Product #	Quantity	Mol. Wt.	Isotype/Source
Phospho-IGF-I Receptor beta (Y1135) (DA7A8) Rabbit mAb	3918	100 μ l	95 kDa	Rabbit IgG
IGF-IR beta (D23H3) XP® Rabbit mAb	9750	100 μ l	95 kDa	Rabbit IgG

See www.cellsignal.com for individual component applications, species cross-reactivity, dilutions, and additional application protocols.

Description: PhosphoPlus® Duets from Cell Signaling Technology (CST) provide a means to assess protein activation status. Each Duet contains an activation-state and total protein antibody to your target of interest. These antibodies have been selected from CST's product offering based upon superior performance in specified applications.

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).

Specificity/Sensitivity: Phospho-IGF-I Receptor β (Tyr1135) (DA7A8) Rabbit mAb detects endogenous levels of IGF-I receptor only when phosphorylated at Tyr1135. This antibody cross-reacts with Tyr1150 of insulin receptor and may also cross-react with other overexpressed related tyrosine-phosphorylated tyrosine kinases. IGF-I Receptor β (D23H3) XP® Rabbit mAb detects endogenous levels of total IGF-I receptor β protein. This antibody does not cross-react with insulin receptor.

Source/Purification: Monoclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr1135 of human IGF-I receptor β or a synthetic peptide corresponding to residues near the carboxy terminus of human IGF-I receptor β protein.

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.

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background References:

- (1) Adams, T.E. et al. (2000) *Cell Mol Life Sci* 57, 1050-93.
- (2) Baserga, R. (2000) *Oncogene* 19, 5574-81.
- (3) Scheidegger, K.J. et al. (2000) *J Biol Chem* 275, 38921-8.
- (4) 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) *J Biol Chem* 260, 9470-8.
- (8) White, M.F. et al. (1988) *J Biol Chem* 263, 2969-80.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.