Revision 1

Store at -20C

#8338

Phospho-Insulin/IGF Receptor Antibody Sampler Kit

1 Kit (6 x 20 microliters)

Cell Signaling TECHNOLOGY®

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Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-IGF-I Receptor β (Tyr1135) (DA7A8) Rabbit mAb	3918	20 µl	95 kDa	Rabbit IgG
Phospho-IGF-I Receptor β (Tyr1131)/Insulin Receptor β (Tyr1146) Antibody	3021	20 µl	95 kDa	Rabbit
Phospho-IGF-I Receptor β (Tyr1135/1136)/Insulin Receptor β (Tyr1150/1151) (19H7) Rabbit mAb	3024	20 µl	95 kDa	Rabbit IgG
Phospho-IGF-I Receptor β (Tyr980) (C14A11) Rabbit mAb	4568	20 µl	95 kDa	Rabbit IgG
Insulin Receptor β (4B8) Rabbit mAb	3025	20 µl	95 kDa	Rabbit IgG
IGF-I Receptor β (D23H3) XP® Rabbit mAb	9750	20 µl	95 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Phospho-Insulin/IGF Receptor Antibody Sampler Kit provides an economical means of evaluating total Insulin Receptor and IGF-I Receptor β protein levels as well as Insulin and IGF-I Receptor β phosphorylated at specific sites. The kit includes enough antibody to perform two western blot experiments with each primary antibody.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

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.
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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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