

#1525 Store at -20°C

IGF-I Receptor β Blocking Peptide



✓ 100 μ g

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

Description: This peptide is used to block IGF-I Receptor β Antibody #3027 reactivity in peptoid dot blot protocols.

Background: Insulin-like growth factor 1 (IGF-1) is a small (7.65 kDa) growth factor that interacts with both the IGF-1 receptor and the insulin receptor to control cell growth and apoptosis. Release of this endocrine hormone from the liver is stimulated by growth hormone produced in the anterior pituitary (1). Circulating IGF-1 is typically bound to one of six known IGF binding proteins (IGF-BP) (2). At target cells, the IGF-1 ligand binds IGF receptors (or insulin receptors) leading to receptor autophosphorylation and activation (3). Activated receptors mediate downstream signaling pathways (including Akt and MAPK) that regulate cell proliferation, apoptosis, development and longevity. Altered expression or mutation of IGF-1 is associated with several human disorders, including type I diabetes and various forms of cancer (4). Recombinant human IGF-1 has been used in clinical trials as a potential therapeutic agent in the treatment of human diseases (5).

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide detects IGF-I Receptor β Antibody #3027 signal in peptoid dot blot.

Directions for Use: Use as a blocking reagent to evaluate the specificity of antibody reactivity in peptoid dot blot protocol.

Background References:

- (1) Le Roith, D. (1997) *N Engl J Med* 336, 633-40.
- (2) Jones, J.I. and Clemmons, D.R. (1995) *Endocr Rev* 16, 3-34.
- (3) Hernández-Sánchez, C. et al. (1995) *J Biol Chem* 270, 29176-81.
- (4) Sandhu, M.S. (2005) *Endocr Dev* 9, 44-54.
- (5) Trojan, J. et al. (2007) *Neuroscience* 145, 795-811.

Entrez-Gene ID #3480
UniProt ID #P08069

Storage: Supplied in 20 mM potassium phosphate (pH 7.0), 50 mM NaCl, 0.1 mM EDTA, 1 mg/ml BSA, 5% glycerol and 1% DMSO. Store at -20°C.

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: 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.