Insulin Receptor β (4B8) Rabbit mAb

Applications | Species Cross-Reactivity* | Molecular Wt | Isotype
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W, IP | H, M, R | 95 kDa | Rabbit IgG**

**Species cross-reactivity is determined by western blot.**

Recommended Antibody Dilutions:
- Western blotting: 1:1000
- Immunoprecipitation: 1:50

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

**For research use only. Not for use in diagnostic procedures.**

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.

Applications Key:
- W—Western
- IP—Immunoprecipitation
- IHC—Immunohistochemistry
- ChIP—Chromatin Immunoprecipitation
- IF—Immunofluorescence
- F—Flow cytometry
- E-PELISA-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
- Hs—horse
- All—all species expected

Species enclosed in parentheses are predicted to react based on 100% homology.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

Entrez-Gene ID #3643
UniProt ID #P06213

U.S. Patent No. 5,675,063

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Western blot analysis of cell extracts from various cell lines using Insulin Receptor β (4B8) Rabbit mAb.

Immunoprecipitation of Insulin Receptor β from insulin treated mIMCD-3 cell extracts using Insulin Receptor β antibody (Lane 1) Lane 2: No antibody control. Lane 3: Input control.

1 2 3

95 kDa

IgG Heavy Chain

Western blot analysis of cell extracts from various cell lines using Insulin Receptor β (4B8) Rabbit mAb.

Pro-Insulin Receptor

Insulin Receptor β

95 kDa

H, M, R 95 kDa Rabbit IgG**

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 the insulin receptor is one of the earliest cellular responses to insulin stimulation (7). Autophosphorylation begins with phosphorylation of Tyr1146 and either Tyr1150 or Tyr1151, while full kinase activation requires triple tyrosine phosphorylation (8).

Specificity/Sensitivity:
Insulin Receptor β (4B8) Rabbit mAb detects endogenous levels of total insulin receptor β. It does not cross-react with IGF-IR β.

Source/Purification:
Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Tyr999 of human insulin receptor β.

Background References: