

Insulin Receptor (phospho-Tyr1322) Monoclonal Antibody (21G12)

Product Specifications

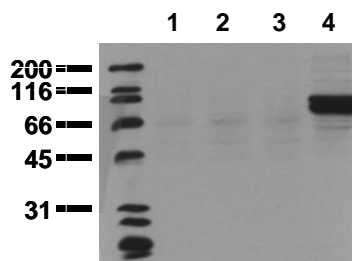
Catalog Number:	905-646
Host:	Mouse
Isotype:	IgG ₁
Species Reactivity:	Human, mouse, and canine
Predicted m.w.:	~97 kDa
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: 0.5 µg/mL (ECL) <i>Recommended blocking buffer CPPT: 0.5% (w/v) casein, 1% (w/v) PEG 4000, 1% (w/v) PVP, 0.1% (v/v) Tween 20, 2x PBS</i> ELISA: 0.1 µg/mL
Concentration:	See product label
Purification:	Thiophilic adsorption and size exclusion chromatography
Format:	Lyophilized from 2x PBS, 0.09% sodium azide, PEG, and sucrose; reconstitute with 1 mL of water for 15 min at RT
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C; store at -80°C after reconstitution (aliquot to avoid repeated freeze/thaw cycles)
Immunogen:	Synthetic phospho-peptide derived from the sequence of human Insulin Receptor, conjugated to hemocyanin
Related Products:	
CSA-720	Insulin Receptor (phospho-Tyr972) Polyclonal Antibody
905-645	Insulin Receptor (phospho-Tyr1150/1151) Monoclonal Antibody (10C3)
905-647	Insulin Receptor Monoclonal Antibody
905-683-100	Insulin Receptor β Monoclonal Antibody (C18C4)

Background:

The heterodimeric Insulin Receptor (InsR) tyrosine kinase represents one part of the signaling network that regulates blood glucose levels and metabolism^{1,2}. Activation of InsR occurs upon binding of the peptide hormone insulin, leading to autophosphorylation of tyrosine residues 1146, 1150, and 1151 in the activation loop of the cytoplasmic β-chain. Additional autophosphorylation sites including tyrosine residues 960, 1316, and 1322 regulate the assembly of signal transduction complexes. Autophosphorylation at Tyr1322 creates a pYXXM motif, mediating association of Shc with the InsR to initiate Ras signaling³⁻⁴. This antibody specifically recognizes InsR phosphorylated at tyrosine 1322.

References:

- Schmelzle, K. *et al.* (2006) *Diabetes* **55**, 2171-2179.
- White, M.F. and Kahn, C.R. (1994) *J Biol Chem.* **269**, 1-4.
- Gustafson, T.A., *et al.* (1995) *Mol Cell Biol.* **15**, 2500-2508.
- Yonezawa, K., *et al.* (1994) *J Biol Chem.* **269**, 4634-4640.



Western blot analysis of MDA-MB-231 cell lysates, untreated (1), Insulin treated (2), IGF-1 treated (3), or pervanadate treated (4), probed with Insulin Receptor (phospho-Tyr1322) Monoclonal Antibody (21G12).

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