



# Mouse Anti-Human INSR CT-1(C-terminal) Monoclonal Antibody, clone NBI2 (CABT- Z173M)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>   | Human insulin receptor antibody CT-1 is a mouse monoclonal antibody (IgG1) that recognizes an epitope within amino acids 1337-1355 in the C-terminal domain of the human insulin receptor. The antibody was prepared against a C-terminal peptide sequence of the human insulin receptor $\beta$ subunit (KKNGRILTLPRSNPS). The antibody reacts with native human and rat insulin receptors in solution, whether or not insulin is bound and whether or not the receptor has undergone prior tyrosine autophosphorylation. |
| <b>Specificity</b>        | Cross-reacts with the human and rat insulin receptor, but not the human or rat type 1 IGF receptor.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Immunogen</b>          | The hexadecapeptide YKKNGRILTLPRSNPS conjugated to keyhole limpet haemocyanin or bovine serum albumin.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Isotype</b>            | IgG1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source/Host</b>        | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Clone</b>              | NBI2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Purification</b>       | Purified from conditioned medium by Protein A affinity chromatography.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Conjugate</b>          | Unconjugated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Applications</b>       | WB, IP, EIA<br>Recommended concentration:<br>WB: 1:5000                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

IP: 1:5000  
EIA: 1:5000  
Each application and titre should be determined in house.

|                       |                                                                                                                       |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Reconstitution</b> | Dissolve in 200 µl phosphate buffered saline pH 7.4.                                                                  |
| <b>Format</b>         | Lyophilized                                                                                                           |
| <b>Size</b>           | 200 µg                                                                                                                |
| <b>Preservative</b>   | None                                                                                                                  |
| <b>Storage</b>        | At least 2 years at 2 - 4 °C (lyophilized). After reconstitution store at -20 °C or -80 °C. Avoid freeze-thaw cycles. |
| <b>Ship</b>           | Wet ice                                                                                                               |

## BACKGROUND

**Introduction**

The insulin receptor (IR) is a heterodimeric protein complex that has an intracellular  $\beta$  subunit and an extracellular  $\alpha$  subunit, which is disulfide- linked to a transmembrane segment. The insulin ligand binds to the IR and initiates molecular signaling pathways that promote glucose uptake in cells and glycogen synthesis. Insulin binding to IR induces phosphorylation of intracellular tyrosine kinase domains and recruitment of multiple SH2 and SH3 domaincontaining intracellular proteins that serve as signaling intermediates for pleiotropic effects of insulin. The human insulin receptor gene maps to chromosome 19p13.3-p13.2 and encodes a 1382 amino acid protein that cleaves to form  $\alpha$  and  $\beta$  subunits. Type 1 diabetes is an autoimmune condition of the endocrine pancreas that results in destruction of insulin secreting cells and a progressive loss in insulin-sensitive glucose uptake by cells. Type 2 diabetes is a condition where cells become resistant to insulin action.

**Keywords** CD220;HHF5;HIR A;INSR;Insulin receptor;Insulin receptor subunit alpha;IR antibody

## GENE INFORMATION

|                       |                        |
|-----------------------|------------------------|
| <b>Gene Name</b>      | INSR                   |
| <b>Entrez Gene ID</b> | <a href="#">3643</a>   |
| <b>UniProt ID</b>     | <a href="#">P06213</a> |