

Active Recombinant Human Prolactin Receptor, Fc-tagged

Cat. No. PRLR-1677H **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant Human PRLR was expressed in NSO cells. The DNA sequence encoding the signal peptide from human CD33 joined with the extracellular domain of human Prolactin R was fused to the Fc region of human IgG1 via a linker peptide.

Species Human

Source Mammalian Cells

Description Prolactin Receptor (PRLR) is a cytokine receptor superfamily that lacks an intrinsic kinase domain and relies on the cytoplasmic Jak tyrosine kinases to transduce signals. PRLR is required for the signaling and proliferation of prolactin. Prolactin receptors have been localized in a number of peripheral tissues, including tissues involved in reproduction. It is also expressed both in the stromal and epithelial compartment of the mammary gland. Within the immune system, multiple isoforms of the prolactin receptor serve to mediate the effects of its ligand prolactin. These isoforms are structurally and functionally distinct, causing significant differences in ligand affinities, kinetics of transduction and the transduction proteins activated. Differential activation of these pathways may contribute to the pleiotropism of prolactin action in tissues of the immune system. Prolactin receptor is required for normal maternal glucose homeostasis during pregnancy.

Molecular Weight The predicted molecular weight of Recombinant Human PRL-R is Mr 51 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 66 kDa.

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State Of Matter	Lyophilized.
Purity	>90% by SDS Page and analyzed by silver stain.
Formulation	This recombinant protein was 0.2 μm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 with no calcium, magnesium, or preservatives.
Endotoxin	<1.0 EU/g as determined by the LAL method.
Biological Activity	The biological activity of Human PRL-R was determined by its ability to neutralize rhProlactin-induced proliferation of Nb2-11 cells (a rat lymphoma cell line). The expected ED50 of this effect is typically 0.15-0.75 μg/ml in the presence of 0.5 ng/ml of Recombinant Human Prolactin.
Storage And Stability	This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions.

GENE INFORMATION

Gene Name	PRLR prolactin receptor [Homo sapiens]
Synonyms	PRLR; prolactin receptor; hPRLrI; hPRL receptor; prolactin receptor delta 7/11; secreted prolactin binding protein; delta 4-SF1b truncated prolactin receptor; delta 4-delta 7/11 truncated prolactin receptor; OTTHUMP00000115998; PRL-R; prolactin receptor delta 7/11

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Gene ID	5618
mRNA Refseq	NM_000949
Protein Refseq	NP_000940
MIM	176761
UniProt ID	P16471
Chromosome Location	5p13.2
Pathway	Cytokine-cytokine receptor interaction; Neuroactive ligand-receptor interaction; Jak-STAT signaling pathway
Function	ornithine decarboxylase activator activity; peptide hormone binding; prolactin receptor activity; protein binding; protein homodimerization activity; receptor activity

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