

Active Recombinant Human Prolactin Receptor

Cat. No. PRLR-4144H **Lot. No.** (See product label)

SPECIFICATION

Product Overview Extra Cellular Domain Prolactin Receptor Human Recombinant produced in E.Coli is a non-glycosylated, Polypeptide chain containing 210 amino acids and having a molecular mass of 23.97 kDa. The Prolactin Receptor is purified by proprietary chromatographic techniques according to Bignon et al. (1994) JBC 269; 3318-24 and tested according to Gertler et al. (1996) JBC 271; 24482-91.

Species Human

Source E.Coli

Description The PRL-R consists of at least 3 separate domains: an extracellular region with 5 cysteines which contains the prolactin binding site, a single transmembrane domain and a cytoplasmic region, the length of which appears to influence ligand binding and regulate cellular function.

Form The Prolactin Receptor was lyophilized from a concentrated (0.4mg/ml) solution with 0.0045mM NaHCO₃.

Purity Greater than 97.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE. (c) Gel filtration at pH 8 under non denaturative conditions.

Bio-activity Activity is determined by the dose-dependant inhibition of Prolactin stimulated proliferation of Nb2 cells and by high affinity binding of ovine Prolactin and other lactogenic hormones in 1:1 molar ratio.

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| Physical Appearance | Sterile filtered white lyophilized powder. |
| Solubility | It is recommended to reconstitute the lyophilized PRLR in sterile 18M-cm H ₂ O not less than 100g/ml and not more than 1 mg/ml, which can then be further diluted to other aqueous solutions. |
| Amino acid sequence | The sequence of the first six N-terminal amino acids was determined to be Ala-Gly-Lys-Pro-Glu-Ile. |
| Protein Content | UV spectroscopy at 280 nm using the absorbency value of 2.63 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). |
| Storage | Lyophilized PRL-R although stable at room temperature for 1-2 weeks, should be stored desiccated below -18°C or preferably even at -80°C to prevent dimer formation. Upon reconstitution PRL-R should be stored sterile at 4°C between 2-7 days and for future use below -18°C. For long term storage at 4°C it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles as they cause oligomerization of the protein. |

GENE INFORMATION

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| Gene Name | PRLR prolactin receptor [Homo sapiens] |
| Official Symbol | PRLR |
| 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; Adipogenesis; ErbB4 signaling events; Ovarian Infertility Genes; Signaling events mediated by PTP1B |
| Function | ornithine decarboxylase activator activity; peptide hormone binding; prolactin receptor activity; protein binding; protein homodimerization activity; receptor activity; metal ion binding; cytokine receptor activity |

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