

Recombinant Rabbit Prolactin Soluble Receptor

Cat. No. PRLR-1837R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant rabbit Prolactin Receptor Extra Cellular Domain (rbPRLR-ECD) produced in <i>E. Coli</i> is a non-glycosylated, polypeptide chain containing 207 amino acids and having a molecular mass of 23806 Da.
Species	Rabbit
Source	E.coli
Description	Prolactin is a pituitary hormone involved in the stimulation of milk production, salt and water regulation, growth, development and reproduction. The initial step in its action is the binding to a specific membrane receptor (prolactin receptor) which belongs to the superfamily of class 1 cytokine receptors. PRL exerts its influence on different cell types through a signal transduction pathway which begins with the binding of the hormone to a transmembrane PRL receptor. PRL receptor, varies in size (short and long forms) with tissue source and species, from 40 kDa to 100 kDa. The PRL receptor consists of at least three 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.
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined to be Gly-Lys-Pro-Phe-Ile.
Physical Appearance	Filtered White lyophilized (freeze-dried) powder.

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Purity	Greater than 97.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. (c) Gel filtration at pH 8 under non denaturative conditions.
Formulation	The protein was lyophilized from a concentrated (1mg/ml) solution with 0.0045mM NaHCO ₃ .
Solubility	It is recommended to reconstitute the lyophilized PRLR-ECD 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.
Endotoxin	Less than 0.1 ng/g (IEU/g) of rbPRLR-ECD (24 kDa).
Protein Content	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 2.79 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. 2. Analysis by RP-HPLC, using a standard solution of PRL-R as a Reference Standard.
Dimers And Aggregates	Less than 3%.
Biological Activity	Activity is determined by the dose-dependant inhibition of PRL-stimulated proliferation of Nb2 cells and by high affinity binding of oPLR and other lactogenic hormones.
Stability	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.

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GENE INFORMATION

Gene Name	PRLR prolactin receptor [<i>Oryctolagus cuniculus</i>]
Synonyms	prolactin receptor; PRLR; PRL-R
Gene ID	100009046
mRNA Refseq	NM_001082231
Protein Refseq	NP_001075700
UniProt ID	P14787

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