Recombinant Ovine Prolactin Receptor

Cat. No. PRLR-55O **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Ovine Prolactin Receptor Extra Celleular Domain produced in*E.Coli*is a non-glycosylated, Polypeptide chain containing 213 amino acids and having a molecular mass of 24.4 kDa. The Prolactin Receptor is purified by proprietary chromatographic techniques.
Species	Ovine
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. The function of the prolactin receptor is mediated, at least in part, by two families of signaling molecules: Janus kinases and signal transducers and activators of transcription. Prolactin (PRL) is a hormone involved in a variety of important functions including ion transport and osmoregulation, stimulation of milk, protein synthesis as well as the regulation of numerous reproductive functions. 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. Immunoreactive PRL receptor, a member of the cytokine receptor family, 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

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	length of which appears to influence ligand binding and regulate cellular function.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 97.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	The protein was lyophilized from a concentrated (1 mg/ml) solution with 0.0045 mM NaHCO3.
Solubility	It is recommended to reconstitute the lyophilized PRL-R in sterile 18 MΩ-cm H_2O not less than 100 g/ml, which can then be further diluted to other aqueous solutions.
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Gln-Ser-Pro-Pro-Glu.
Protein Content	Protein quantitation was carried out by two independent methods: 1.UV spectroscopy at 280 nm using the absorbency value of 2.78 as the extinction coefficient for a 0.1% (1 mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of PRL-R as a Reference Standard.
Storage	Lyophilized PRL-R although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution Prolactin Receptor should be stored at 4℃between 2-7 days and for future use below -18℃For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	PRLR prolactin receptor [Ovis aries]

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Synonyms	PRLR; prolactin receptor
Gene ID	554331

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