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## **Product Datasheet**

Product Name Prolactin Soluble Receptor Ovine Recombinant

Cata No CB500195

Source Escherichia Coli.

Synonyms PRL-R, PRLR, OPR, PRLrl.

## **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 length of which appears to influence ligand binding and regulate cellular function.

Prolactin Receptor produced in E.Coli is a Ovine Extra Celleular Domain Recombinant 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.

# **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 (1mg/ml) solution with 0.0045mM NaHCO<sub>3</sub>.

#### **Stability**

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.

#### Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Gln-Ser-Pro-Pro-Glu.

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