

BACKGROUND:

Prolactin (PRL) is a hormone that is produced and secreted by the pituitary gland. PRL acts in an endocrine, paracrine, and autocrine manner. The prolactin receptor (PRLR) is expressed on many cell types, including cells of the reproductive organs, central nervous system, and breast cancer. PRL signal transduction occurs via JAK kinase signaling pathways. The primary function of PRL is to regulate lactation, but PRL also plays functional roles in the immune system and during cell growth, apoptosis, and differentiation.

Recombinant human Prolactin is a non-glycosylated protein monomer, containing 200 amino acids and having a molecular mass of 23 kDa.

Cat. No.:
RP1045

Alternate Names:

PRL, LTH, Mamotropin, Luterotropic hormone, Lutetropin

AA Sequence:

MLPICPGGAA	RCQVTLRDLF	DRAVLSHYI
HNLSEMFSF	FDKRYTHGRG	FITKAINSCH
TSSLATPEDK	EQAQQMNQKD	FLSLIVSILR
SWNEPLYHLV	TEVRGMQEAP	EAILSKAVEI
EEQTKRLLEG	MELIVSQVHP	ETKENEIYPV
WSGLPSLQMA	DEESRLSAYY	NLLHCLRRDS
HKIDNYLKLL	KCRIIHNNNC	

TECHNICAL INFO

Source:

E. coli

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:

10 mM sodium phosphate, pH 7.5

Stability:

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/mL, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm.
- RP-HPLC calibrated against a known standard.
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:

The activity is measured by NB2-11 cell proliferation, with Bioactivity Acceptance Criteria ED50 at 1 ng/mL.

