

## PRL Protein, Human, Recombinant

### General Information

Synonyms:	PRL;Prolactin
Protein Construction:	Leu29-Cys227
Species:	Human
Expression Host:	E. coli
Accession:	P01236
Molecular Weight:	25 KDa (reducing condition)
AA Sequence:	Leu29-Cys227

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.001 ng/μg (0.01 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM PB, 150 mM NaCl, 1 mM EDTA, pH 7.4.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Prolactin (PRL) is a secreted neuroendocrine pituitary hormone that acts primarily on the mammary gland to promote lactation, but has pleiotropic effects in both males and females. Non-glycosylated prolactin is produced by the pituitary and packaged in storage granules before secretion, while glycosylated prolactin is reported to be constitutively secreted, have lower biological potency, and be removed from the circulation more quickly. Prolactin is synthesized mainly by the anterior pituitary in all mammals, where secretion is under tonic inhibition

by hypothalamic dopamine. In humans, prolactin is also produced peripherally. Prolactin expression is low during early human pregnancy, but increases in late pregnancy. The prolactin receptor (PRLR) is a transmembrane type I glycoprotein that belongs to the cytokine hematopoietic receptor family. prolactin molecule is thought to bind two receptor molecules. In addition to its lactogenic activity, peripherally produced prolactin plays roles in breast and prostate cancer development, regulation of reproductive function, and immunoregulation.

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