

## Product Brief

### Abbreviations Synonyms Source Accession Number

rPRL  
Luteotropic Hormone  
Yeast (*Pichia pastoris*)  
NP\_000939

### Protein Function

A peptide hormone primarily associated with lactation <sup>(1)</sup>. During breastfeeding, the act of the infant suckling on the nipple up regulates the production of prolactin, which in turn fills the breast with milk via a process called lactogenesis in preparation for the next feed.

### Tissue Occurrence and Abundance

Prolactin is secreted from a number of tissues, including the anterior pituitary, the breast, deciduas, parts of the central nervous system and the immune system <sup>(2)</sup>. In the first three months of pregnancy, the high levels of circulating estrogen promote the production and secretion of prolactin. After childbirth, estrogen levels drop, thus down regulating prolactin secretion.

### Market

Diagnostic use: Prolactin levels may be checked as part of a sex hormone workup, as elevated prolactin secretion can suppress the secretion of FSH and GnRH, leading to hypogonadism, and sometimes causing erectile dysfunction in men. Prolactin levels may be of some use in distinguishing epileptic seizures from psychogenic non-epileptic seizures <sup>(3)</sup>. Pharmaceutical use: Prolactin also has a number of therapeutic uses including an immunomodulator<sup>(4)</sup> and an inducer of lactogenesis <sup>(5)</sup>.

### Structure

Molecular Weight	22,898Da (theoretical by ExPASy)
Amino Acids	199
N-Terminal Sequence	LPICPGG
Disulphide Bonds	3
Prosthetic Groups	N/A
Glycosylation	N/A
Oligomerization	Slight dimerization when visualized by Western Blotting
Isoforms	N/A
Immunoreactivity	>30IU/mg by Roche Modular and Abbot AxSym

### References

1. Teilum K (2005). *J Mol Biol.* 351. 810-823.
2. Mancini T (2008) *Endocrinology & Metabolism Clinics of North America.* 37. 67.
3. Banerjee S (2004). *Indian Pediatr.* 41(8). 827-31.
4. Reber PM (1993) *Am J Med.* 95(6). 637-44.
5. Smith ID (1972) *Nature.* 240. 411-412.

### Stability

Can be presented frozen or lyophilized. Needs to be kept <-15°C. Real-time stability study underway.

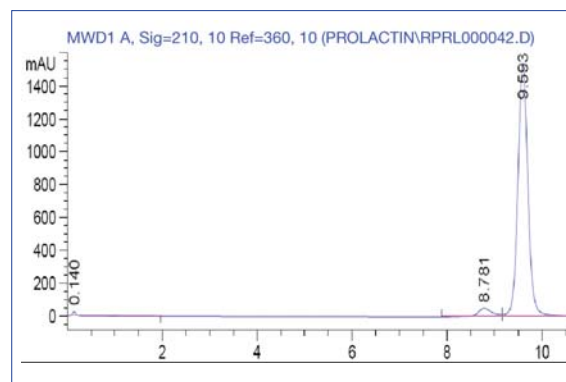
## Recombinant Human Prolactin

Purity &gt;95%

16% SDS PAGE



Dio200 GPC 300x8mm id HPLC column



**Ordering details.** Use the following code when ordering.

Product	Code	Description
Pure Prolactin	P700-1	Recombinant from yeast with purity greater than 95%

## Related Products:

Product	Code	Description
Prolactin Samples	SG345	Patient samples with a raised prolactin level
Hormone free serum 2	SF512-2	Serum depleted in FSH, LH, Prolactin, Testosterone and Progesterone

NOTES



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