# **PRODUCT INFORMATION**

**Expression system** E.coli

**Domain** 30-228aa

UniProt No. Q9CPQ2

NCBI Accession No. NP\_035294

Alternative Names Prolactin isoform 1, AV290867, Gha1, Prl1a1

# **PRODUCT SPECIFICATION**

**Molecular Weight** 22.7 kDa (200aa) confirmed by MALDI-TOF

**Concentration** 1mg/ml (determined by absorbance at 280nm)

**Formulation** Liquid in. Phosphate-Buffered Saline (pH 7.4)

**Purity** > 90% by SDS-PAGE

**Endotoxin level** < 1 EU per 1ug of protein (determined by LAL method)

# Biological Activity

Measured in a cell proliferation assay using Nb2-11 rat lymphoma cells. The ED50 range  $\leq$  3ng/ml.

#### **Tag** Non-Tagged

Application SDS-PAGE, Bioactivity

## **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

## Description

Prolactin, also known as prl, is a hormone synthesized and secreted by lactotrope cells in the adenohypophysis

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(anterior pituitary gland). Prolactin has many effects, the most significant of which is to stimulate the mammary glands to produce milk (lactation). Increased serum prolactin during pregnancy causes enlargement of the mammary glands of the breasts and increases the production of milk. Recently, prolactin has demonstrated broader roles in breast cancer development, regulation of reproductive function, and immuno-regulation. Recombinant mouse Prolactin, was expressed in E. coli and purified by using conventional chromatography techniques.

#### **Amino acid Sequence**

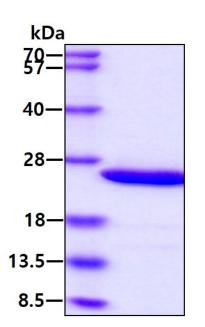
MQPLPICSAG DCQTSLRELF DRVVILSHYI HTLYTDMFIE FDKQYVQDRE FMVKVINDCP TSSLATPEDK EQALKVPPEV LLNLILSLVQ SSSDPLFQLI TGVGGIQEAP EYILSRAKEI EEQNKQLLEG VEKIISQAYP EAKGNGIYFV WSQLPSLQGV DEESKILSLR NTIRCLRRDS HKVDNFLKVL RCQIAHQNNC

#### **General References**

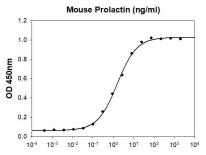
Suzuki MF., et al. (2012) Biotechnol Appl Biochem. 59(3):178-85 Goffin V., et al. (1999) Mol Cell Endocrinol. 151(1-2):79-87.

## DATA

#### SDS-PAGE



**Biological Activity** 



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

Mouse Prolactin stimulates cell proliferation of the Nb2-11 rat lymphoma cells. The ED50 range  $\leq$ 3 ng/ml.