

GFH45 Recombinant Human Prolactin

Description

Prolactin is a hormone that is produced and secreted by the pituitary gland. Prolactin 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. Prolactin signal transduction occurs via JAK kinase signaling pathways. The primary function of prolactin is to regulate lactation, but prolactin also plays functional roles in the immune system and during cell growth, apoptosis, and differentiation.

Length	200 aa
Molecular Weight	23.0 kDa
Source	E. coli
Accession Number	P01236
Purity	≥95% determined by reducing and non-reducing SDS-PAGE

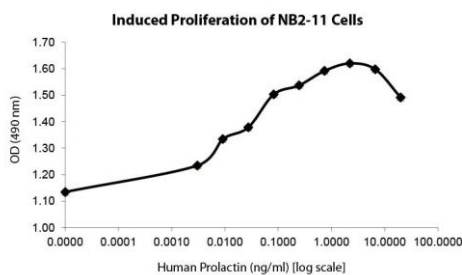
Specifications

Alternative Names	PRL, LTH, mamotropin, luterotropic hormone, lutetropin
Biological Activity	Human Prolactin is fully biologically active when compared to standard. The activity is determined by the ability to induce NB2-11 cells proliferation and it is typically less than 1 ng/ml. This corresponds to an expected specific activity of 1 x 10 ⁶ units/mg.
Endotoxin Level	≤1.00 EU/μg as measured by kinetic LAL
Formulation	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
AA Sequence	MLPICPGGAA RCQVTLRDLF DRAVVLSHYI HNLSEMSE FDKRYTHGRG FITKAINSCH TSSLATPEDK EQAQQMNQKD FLSLIVSILR SWNEPLYHLV TEVRGMQEAP EAILSKAVEI EEQTKRLLEG MELIVSQVHP ETKENEIYPV WSGLPQLQMA DEESRLSAYY NLLHCLRRDS HKIDNYLKLL KCRIIHNNNC

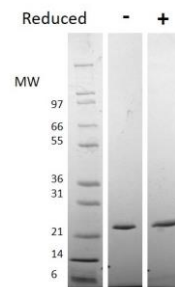
Preparation and Storage

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.
Stability and Storage	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

Data



Induced proliferation of NB2-11 cells assay for Human Prolactin. Cell proliferation was measured to calculate the ED50, which is as expected less than 1 ng/ml.



Non-reducing (-) and reducing (+) conditions in a 4 - 20% Tris-Glycine gel stained with Coomassie Blue. 1 μg of protein was loaded in each lane. Human Prolactin has a predicted Mw of 23.0 kDa.