

TECHNICAL DATA SHEET

Recombinant Human Prolactin (Carrier-free)

Catalog Number: 21-7124

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

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Recombinant Human Prolactin (Carrier-free)

DESCRIPTION

Prolactin is a globular, secreted neuroendocrine pituitary hormone present as both glycosylated and non-glycosylated monomers. The non-glycosylated form is expressed in the pituitary gland and stored in granules prior to being secreted. The glycosylated protein reportedly has lower biologic activity but is constitutively secreted. Prolactin binds the prolactin receptor (PRLR), which has widespread expression. Prolactin is a lactogenic protein, acting mainly on the mammary gland and promoting lactation in females during pregnancy and suckling. It also has been reported to have functions related to immunoregulation, breast and prostate cancer development, and regulation of reproductive function.

MOLECULAR MASS

Recombinant Human Prolactin consists of 200 amino acids, resulting in a 23.0 kDa protein.

AMINO ACID SEQUENCE

MLPICPGGAA RCQVTLRDLF DRAVVLSHYI HNLSSSEMFSE FDKRYTHGRG FITKAINSCH TSSLATPEDK EQAQQMNQKD FLSLIVSILR
 SWNEPLYHLV TEVRGMQEAP EAILSKAVEI EEQTKRLLG MELIVSQVHP ETKENEIYPV WSGLPSLQMA DEESRLSAYY
 NLLHCLRRDS HKIDNYLKLK KCRIIHNNNC

SOURCE

E. coli

APPLICATIONS

Bioassay

PURITY

98 %

STORAGE

-20°C

PROTEIN CONTENT

Verified by UV Spectroscopy and/or SDS-PAGE gel.

ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/µg of protein (<1 EU/µg).

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

Rat

BIOACTIVITY

Using a concentration range of 0.1-1.0 ng/ml, the ability to induce proliferation of rat Nb2-11 cells is determined.

RESEARCH AREAS

Differentiation, Proliferation, Neurobiology, Stem Cells

RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

REFERENCES

Bole-Feysot C, Goffin V, Ederly M, Binart N and Kelly PA. 1998. *Endocr Rev.* 19(3): 225-268. Goffin V, Binart N, Clement-Lacroix P, Bouchard B, Bole-Feysot C, Ederly M, Lucas BK, Touraine P, Pezet A, Maaskant R, et al. 1999. *Genet Anal.* 15(3-5): 189-201. Li Y, Clevenger CV, Minkovsky N, Kumar KG, Raghunath PN, Tomaszewski JE, Spiegelman VS and Fuchs SY. 2006. *Oncogene.* 25(13): 1896-1902. Bachelot A and Binart N. 2007. *Reproduction.* 133(2): 361-369. Ben-Jonathan N, LaPensee CR and LaPensee EW. 2008. *Endocr Rev.* 29(1): 1-41. Jacobson EM, Hugo ER, Borcharding DC and Ben-Jonathan N. 2011. *Discov Med.* 11(59): 315-324.

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