Prolactin-Induced Protein Human

Catalog No: 99942
Lot No: XXXXX
Source: Human Seminal Plasma
Synonyms: Prolactin-inducible protein, Gross cystic disease fluid protein 15, GCDFP-15, Prolactin-induced protein, Secretory actin-binding protein, SABP, gp17, PIP, GCDFP15, GPIP4

Background

Prolactin inducible protein (PIP) is a 17 kDa glycoprotein existing in human seminal plasma. PIP is synthesized as a 146 amino acid long polypeptide exhibiting high sequence similarity with the mouse submaxillary gland with a single glycosylation site. The precise biological functions of PIP are still ambiguous, but various functions have been assigned to PIP due to its existence at high concentration in biological fluids. PIP binds to various proteins such as fibrinogen, actin, keratin, myosin and tropomyosin. PIP is also expressed in pathological conditions of the mammary gland and in some exocrine tissues, such as the lacrimal, salivary and sweat glands. Due to PIP's association with secretory cell differentiation, it has been used in diagnostic evaluation of tumors of breasts, salivary glands, and skin.

Description

Prolactin-Induced Protein, produced from Human Seminal Plasma, has a molecular mass of 13.52 kDa (calculated without glycosylation) containing 118 amino acid residues.

Physical Appearance

Filtered, white lyophilized (freeze-dried) powder.

Formulation

PIP protein was filtered (0.4 µm) and lyophilized in 0.5 mg/ml in 0.05 M phosphate buffer (pH 8.0) and 0.075 M NaCl.

Solubility

It is recommended to add deionized water to prepare a working stock solution of approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely. PIP is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

Stability

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time. It does not show any change after two weeks at 4°C.

Purity

Samples from each donor have been tested and found negative for HBsAg, HIV1+2, HCV, syphilis, aHBc, RRR.

Amino Acid Sequence

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QDNTRKIIIK NFDIPKSVRP NDEVTAVLAV QTELKECMVV KTYLISSIPL QGAFNYKYTA CLCDDNPKTF YWDFYTNRTV
QIAAVVDVIR ELGICPDDAA VIPIKNNRFY TIEILKVE
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Usage

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