



Lactoferrin NATIVE, Human Seminal Plasma

Product Data Sheet

Type: Native

Source: Human seminal plasma

Species: Human

Other names: Lactotransferrin, Talactoferrin

Cat. No.:

RD164334050

(0.05 mg)

Description

Native protein isolated from pooled human seminal plasma, 691 AA, MW 76,165 kDa (calculated without glycosylation). Protein identity confirmed by LC-MS/MS (NCBI no. gi|119585171).

Introduction to the Molecule

Lactoferrin is a glycoprotein with a molecular weight of about 80 kDa. It was classified as a member of the transferrin family due to its 60% sequence identity with serum transferrin. Colostrum and mature milk contain high levels of lactoferrin. Lactoferrin is also present in most mucosal secretions such as uterine fluid, vaginal secretion, seminal fluid, saliva, bile, pancreatic juice, small intestine secretions, nasal secretion, and tears. Lactoferrin belongs to the innate immune system. Apart from its main biological function, which is to bind and transport iron ions, lactoferrin also has antibacterial, antiviral, antiparasitic, catalytic, anti-cancer, anti-allergic and radioprotecting properties.

Amino Acid Sequence

GRRRSVQWCA VSQPEATKCF QWQRNMRKVR GPPVSCIKRD SPIQCIQAIA ENRADAVTLD GGFIYEAGLA PYKLRPVAAE
VYGTERQPRTHYYAVAVVKK GGSFQLNELQ GLKSCHTGLR RTAGWNVPIG TLRPFLNWTG PPEPIEAAVA RFFSASCVP
ADKGQFPNLC RLCAGTGGENK CAFSSQEPYF SYSGAFKCLR DGAGDVAFIR ESTVFEDLSD EAERDEYELL CPDNTRKPVD
KFKDCHLARV PSHAVVARSV NGKEDAIWNL LRQAQEKFGK DKSPKFQLFG SPSGQKDLF KDSAIGFSRV PPRIDSGLYL
GSGYFTAIQN LRKSEEEVAA RRARVVWCAV GEQELRKCQW WSLSEGSVT CSSASTTEDC IALVLKGEAD AMSLDGGYVY
TAGKCGLVPV LAENYKSQQS SDPDPCVDR PVEGYLAVAV VRRSDTSLTW NSVKGKKSCH TAVDRTAGWN IPMGLLFNQT
GSCKFDEYFS QSCAPGSDPR SNLCALCIGD EQGENKCVPN SNERYGYTG AFRCLAENAG DVAFVKDVTV LQNTDGNNE
AWAKDLKLAD FALLCLDGKR KPVTEARSCH LAMAPNHAVV SRMDKVERLK QVLLHQQAKF GRNGSDCPDK FCLFQSETKN
LLFNDNTECL ARLHGKTTYE KYLGPPQYVAG ITNLKKCSTS PLLEACEFLR K

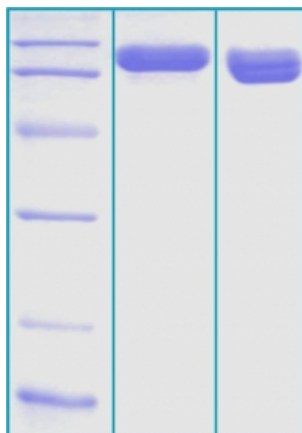
Source

Human seminal plasma

Purity

>90%

SDS-PAGE gel



SDS-PAGE analysis of lactoferrin native protein, 12% gel stained with Coomassie Brilliant Blue G250

- 1) M.W. marker - 14, 21, 31, 45, 66, 97 kDa
- 2) reduced and boiled sample, 2.5ug/lane
- 3) non-reduced and non-boiled sample, 2.5µg/lane

Endotoxin

< 1.0 EU/ug

Formulation

Filtered (0,4 µm) and lyophilized in 0.5 mg/mL in 0,05M phosphate buffer, 0,075M NaCl, pH 7,4.

Reconstitution

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

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

Store lyophilized protein at -80°C. Lyophilized protein remains stable until the expiry date when stored at -80°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C.

Quality Control Test

BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

LAL to determine quantity of endotoxin.

Applications

Cell culture and/or animal studies, ELISA, Immunological methods, Western blotting

Note

All samples used for protein preparation were tested and found negative for HBsAg, HIV1,2, HCV, syphilis, aHBc, RRR. Since no test can absolutely assure the absence of all infectious agents, this product should be handled as a potential biohazard. This product is intended for research use only.