9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

LTF Human

Lactoferrin Human (Breast Milk)
RCP1277

Product Overview

Name	LTF Human
Description	
Lactoferrin Human (Breast Milk)	
Accession (Primary)	P02788
Synonyms	
Lactotransferrin, Lactoferrin, Growth-inhibiting protein 12, Talalactoferrin, LTF, GIG12, LF, HLF2, Neutrophil Lactoferrin.	
Introduction	
Lactoferrin is a glycoprotein that belongs to the transferrin family of iron binding proteins. It is found in human breast milk as well as most epithelial surface secretions including tears, nasogastric, saliva, and bronchial. Lactoferrin binds 2 molecules of iron with very high affinity. Lactoferrin inhibits bacterial growth by withholding iron, its N-terminal region is an antimicrobial peptide. Lactotransferrin acts synergistically with lysozyme to potentiate the activity of both proteins. The multifunctional protein lactoferrin has many physiological possible roles. It is often referred to as an innate defense protein and frequently serves as the first line of defense in protection against pathogens. It has been shown to have the ability to bind iron, it is a natural anti-bacterial, anti-fungal and anti-viral, it is an antioxidant and it also has immunomodulatory properties. It has many beneficial properties, which make it a good candidate for a number of product applications. Considerable research is currently going on to explain the various suggested biological functions of lactoferrin.	
Source	
Human breast milk.	
Physical Appearance	
Filtered White lyophilized (freeze-dried) powder.	
Formulation	
LTF protein filtered (0.4 µm) and lyophilized in 0.5 mg/ml in 0.05M phosphate buffer and 0.075M NaCl, pH 7.4.	
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.	

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Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino acid sequence

GRRRSVQWCA VSQPEATKCF QWQRNMRKVR GPPVSCIKRD SPIQCIQAIA ENRADAVTLD GGFIYEAGLA PYKLRPVAAE VYGTERQPRT HYYAVAVVKK GGSFQLNELQ GLKSCHTGLR RTAGWNVPIG TLRPFLNWTG PPEPIEAAVA RFFSASCVPG ADKGQFPNLC RLCAGTGENK CAFSSQEPYF SYSGAFKCLR DGAGDVAFIR ESTVFEDLSD EAERDEYELL CPDNTRKPVD KFKDCHLARV PSHAVVARSV NGKEDAIWNL LRQAQEKFGK DKSPKFQLFG SPSGQKDLLF KDSAIGFSRV PPRIDSGLYL GSGYFTAIQN LRKSEEEVAA RRARVVWCAV GEQELRKCNQ WSGLSEGSVT CSSASTTEDC IALVLKGEAD AMSLDGGYVY TAGKCGLVPV LAENYKSQQS SDPDPNCVDR PVEGYLAVAV VRRSDTSLTW NSVKGKKSCH TAVDRTAGWN IPMGLLFNQT GSCKFDEYFS QSCAPGSDPR SNLCALCIGD EQGENKCVPN SNERYYGYTG AFRCLAENAG DVAFVKDVTV LQNTDGNNNE AWAKDLKLAD FALLCLDGKR KPVTEARSCH LAMAPNHAVV SRMDKVERLK QVLLHQQAKF GRNGSDCPDK FCLFQSETKN LLFNDNTECL ARLHGKTTYE KYLGPQYVAG ITNLKKCSTS PLLEACEFLR K.

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. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

Precautions

LTF Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P02788)