

32-4135: Human Lactoferrin (Breast Milk)

Alternative Name : Lactotransferrin, Lactoferrin, Growth-inhibiting protein 12, Talalactoferrin, LTF, GIG12, LF, HLF2, Neutrophil Lactoferrin.

Description

Source : Human breast milk. The Human Lactoferrin produced from Human breast milk has a molecular mass of 76.165kDa (calculated without glycosylation) containing 691 amino acid residues. 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.

Product Info

Amount :	200 µg
Purification :	Greater than 95.0% as determined by SDS-PAGE.
Content :	LTF protein filtered (0.4µm) and lyophilized in 0.5 mg/ml in 0.05M phosphate buffer and 0.075M NaCl, pH 7.4.
Storage condition :	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.
Amino Acid :	GRRRSVQWCA VSQPEATKCF QWQRNMRKVR GPPVSCIKRD SPIQCIQAIA ENRADAVTLD GGFIYEAGLA PYKLRPVAAE VYGTERQPRTHYYAVAVVKK GGSFQLNELQ GLKSCHTGLR RTAGWNVPIG TLRPFLNWTG PPEIEAAVA RFFSASCVPG ADKGQFPNLC RLCAGTGENK CAFSSQEPYF SYSGAFKCLR DGAGDVAFIR ESTVFEDLSD EAERDEYELL CPDNTRKPDV KFKDCHLARV PSHAVVARSV NGKEDAIWNL LRQAQEKFGK DKSPKFQLFG SPSGQKDLLF KDSAIGFSRV PPRIDSGLYL GSGYFTAIQN LRKSEEEVAA RRARVVWCAV GEQELRKCNO WSGLSEGSVT CSSASTTEDC IALVLKGEAD AMSLDGGYVY TAGKCGLPV LAENYKSQQS SDPDNVCVDR PVEGYLAVAV VRRSDTSLTW NSVKGKKSCH TAVDRTAGWN IPMGLLFNQ GSCKFDEYFS QSCAPGSDPR SNLCALCIGD EQGENKCVPN SNERYGYTG AFRCLAENAG DVAFVKDVT LQNTDGNNE AWAKDLKLAD FALLCLDGKR KPVTEARSCH LAMAPNHAVV SRMDKVERLK QVLLHQAKF GRNGSDCPDK FCLFQSETKN LLFNDNTECL ARLHGKTTYE KYLGPQYVAG ITNLKKCSTS PLLEACEFLR K.

Application Note

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.

