Datasheet for ABIN3095988

Lactoferrin Protein (AA 20-710) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	Lactoferrin (LTF)
Protein Characteristics:	AA 20-710
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Lactoferrin protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

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

Product Details

	Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human LTF Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	Lactoferrin (LTF)
Alternative Name:	LTF (LTF Products)
Background:	Transferrins are iron binding transport proteins which can bind two Fe(3+) ions in association with the binding of an anion, usually bicarbonate., Lactotransferrin is a major iron-binding and multifunctional protein found in exocrine fluids such as breast milk and mucosal secretions. Has antimicrobial activity, which depends on the extracellular cation concentration. Antimicrobial properties include bacteriostasis, which is related to its ability to sequester free iron and thus inhibit microbial growth, as well as direct bactericidal properties leading to the release of lipopolysaccharides from the bacterial outer membrane. Can also prevent bacterial biofilm development in P.aeruginosa infection. Has weak antifungal activity against C.albicans. Has anabolic, differentiating and anti-apoptotic effects on osteoblasts and can also inhibit osteoclastogenesis, possibly playing a role in the regulation of bone growth. Promotes binding of species C adenoviruses to epithelial cells, promoting adenovirus infection. Can inhibit papillomavirus infections. Stimulates the TLR4 signaling pathway leading to NF-kappa-B activation and subsequent pro-inflammatory cytokine production while also interfering with the lipopolysaccharide (LPS)-stimulated TLR4 signaling. Inhibits neutrophil granulocyte migration to sites of apoptosis, when secreted by apoptotic cells. Stimulates VEGFA-mediated endothelial cell migration and proliferation. Binds heparin, chondroitin sulfate and possibly other glycosaminoglycans (GAGs). Also binds specifically to pneumococcal surface protein A (pspA), the lipid A portion of bacterial lipopolysaccharide (LPS), lysozyme and DNA., Lactoferricin binds to the bacterial surface and is crucial for the bactericidal functions. Has some antiviral activity against papillomavirus infection. N-terminal region shows strong antifungal activity against C.albicans. Contains two BBXB heparin-binding consensus sequences that appear to form the predominate functional GAG-binding site., Kaliocin-1 has antimicrobial activity and is able to permeabilize different ions through liposomal membranes., Lactoferroxins A, B and C have opioid antagonist activity. Lactoferroxin A shows preference for mu-receptors, while lactoferroxin B and C have somewhat higher degrees of preference for kappa-receptors than for mu-receptors., The lactotransferrin transferrin-like domain 1 functions as a serine protease of the peptidase S60 family that cuts arginine rich regions. This function contributes to the antimicrobial activity., Isoform DeltaLf: transcription factor with antiproliferative properties and ability to induce cell cycle arrest. Binds to the DeltaLf response element found in the SKP1, BAX, DCPS, and SELH promoters.
Molecular Weight:	77.1 kDa Including tag.
UniProt:	P02788

Target Details

Pathways:	Transition Metal Ion Homeostasis

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

