Bile Salt-Activated Lipase NATIVE, Human Breast Milk

Product Data Sheet

Type: Native
Source: Human breast milk
Species: Human
Other names: BAL, Bile salt-stimulated lipase, BSSL, Bucelipase, Carboxyl ester lipase, Cholesterol esterase, Pancreatic lysophospholipase, Sterol esterase, CEL

Cat. No.:
RD166341050 (0.05 mg)

Description

Native protein isolated from Human Breast Milk, 733 AA, MW 79,322 kDa (calculated without glycosylation). Protein identity confirmed by LC-MS/MS (NCBI no. gi|27769331).

Introduction to the Molecule

Bile salt-activated lipase (BAL) is one of two lipases secreted from the vertebrate pancreas into the intestine for the digestion of fat. There is evidence to support the importance of bile salt-activated lipase for the absorption of cholesterol, vitamin A and triacylglycerol. In mammals, including humans, BAL is also present in the milk to facilitate fat absorption in infants. Human breast milk contains a bile salt activated lipase at a very high level. The human milk bile salt-activated lipase has also been shown to be identical to bile salt-dependent lipase (BSDL), that is produced in pancreas and has been also documented with several different names, including pancreatic carboxyl ester lipase, pancreatic cholesterol esterase, triacylglycerol lipase, and lysophospholipase.

Research topic

Others

Amino Acid Sequence

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AKLGAVYTEG GFVEGVNKKL GLLGDSVDIF KGIPFAAPTK ALENPQPHPG WQGTLKAKNF KKRCLQATIT QDSTYGDEDC
LYLNIWVPQG RKQVSRDLPV MIWIYGGAFL MGSGHGANFL NNYLYDGEEI ATRGNVIVVT FNYRVGPLGF LSTGDANLPG
NYGLRDQHMA IAWVKRNIAA FGGDPNNITL FGESAGGASV SLQTLSPYNK GLIRRAISQS GVALSPWVIQ KNPLFWAKKV
AEKVGCPVGD AARMAQCLKV TDPRALTLAY KVPLAGLEYP MLHYVGFVPV IDGDFIPADP INLYANAADI DYIAGTNNMD
GHIFASIDMP AINKGNKKVT EEDFYKLVSE FTITKGLRGA KTTFDVYTES WAQDPSQENK KKTVVDFETD VLFLVPTEIA
LAQHRANAKS AKTYAYLFSH PSRMPVYPKW VGADHADDIQ YVFGKPFATP TGYRPQDRTV SKAMIAYWTN FAKTGDPNMG
DSAVPTHWEP YTTENSGYLE ITKKMGSSSM KRSLRTNFLR YWTLTYLALP TVTDQEATPV PPTGDSEATP VPPTGDSETA
PVPPTGDSGA PPVPPTGDSG APPVPPTGDS GAPPVPPTGD SGAPPVPPTG DSGAPPVPPT GDSGAPPVPP TGDSGAPPVP
PTGDSGAPPV PPTGDAGPPP VPPTGDSGAP PVPPTGDSGA PPVTPTGDSE TAPVPPTGDS GAPPVPPTGD SEAAPVPPTD
DSKEAQMPAV IRF
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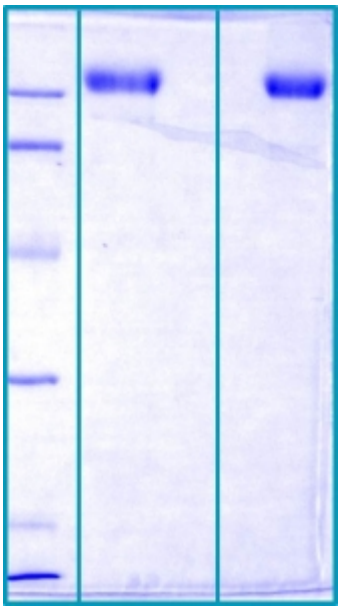
Source

Human breast milk

Purity

Purity as determined by densitometric image analysis: >95%

SDS-PAGE gel



SDS-PAGE analysis of Bile salt-activated lipase NATIVE protein, 12% gel stained with Coomassie Brillant 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.
LC-MS/MS to identify the protein and determine purity 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

This product is intended for research use only.

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