Resistin-Like Molecule-alpha Mouse E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Mouse
Other names: RELM-alpha, Resistin-like alpha, RELMalpha Cysteine-rich secreted protein FIZZ1, Parasite-induced macrophage novel gene 1 protein, Cysteine-rich secreted protein A12-gamma, Retnla, Fizz1, Pmng1

Cat. No.:

RD272068100 (0.1 mg)

Description

Total 121 AA. MW: 13.3 kDa (calculated). N-Terminal signal sequence of phage fd 20 AA and C terminal Flag-tag 10 AA highlighted).

Introduction to the Molecule

RELM-beta (Resistin-Like Molecule-beta) is a member of the family of secreted proteins containing a conserved cystein-rich C-terminus. The RELM family consists of resistin (also called FIZZ3), RELM-alfa (FIZZ1), RELM-beta (FIZZ2) and RELM-gamma. Only resisistin and RELM-beta are present in humans, whereas all four RELM family members are found in rodents.

RELM-beta appears to be produced as a homodimer exclusively by intestinal goblet cells and can be found in high quantities in stool. Remarkably, stool of germ-free mice displaying sterile intestinal tract does not contain RELM-beta until bacterial colonization takes place after pathogen-free mice entered natural environment. Some, but not all, colon carcinoma cell lines secrete RELM-beta into the cell culture supernatant.

The physiological function of RELM-beta is unclear. High doses of recombinant RELM-beta showed hyperglycemic effects including lowered glucose disposal and increased hepatic glucose production in mice.

Research topic

Animal studies, Energy metabolism and body weight regulation

Amino Acid Sequence

MKKLLFAIPL VVPFYSHSTM VNTDETIEII VENKVKELLA NPANYPSTVT KTLSCTSVKT MNRWASCPAG MTATGCACGF ACGSWEIQSG DTCNCLCLLV DWTTARCCQL S**LEDYKDDDD K**

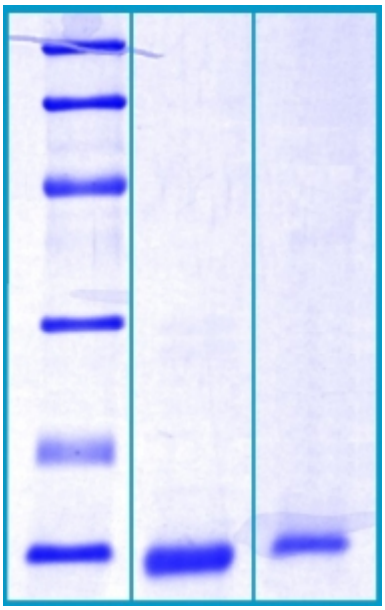
Source

E. coli

Purity

Purity as determined by densitometric image analysis: >95%

SDS-PAGE gel



12% SDS-PAGE separation of Mouse RELM alpha
1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa
2. reduced and heated sample, 5µg/lane
3. non-reduced and non-heated sample, 5µg/lane

Formulation

Filtered (0.4 µm) and lyophilized in 0.5 mg/mL in 5mM Tris, 25mM NaCl, 1mM DTT pH 7.5

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.

Applications

Western blotting

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