



Uteroglobin, mouse recombinant

Catalog No: 97654
Lot No: XXXXX
Source: *E. coli*
Synonyms: Uteroglobin, Clara cell 17 kDa protein, Clara cell phospholipid-binding protein, CCPBP, Clara cells 10 kDa secretory protein, CC10, PCB-binding protein, Secretoglobin family 1A member 1, Scgb1a1, Ugb, Utg, UG, CC16, CCSP, PCB-BP

Background

Uteroglobin (SCGB1A1) which belongs to the Secretoglobin (SCGBs) superfamily, is a multifunctional protein that exerts anti-inflammatory and anti-tumorigenic effects by binding small hydrophobic molecules such as phospholipids and prostaglandins. Uteroglobin is involved in numerous functions including anti-inflammation, inhibition of phospholipase A2 and the sequestering of hydrophobic ligands. SCGB1A1 is expressed by Clara cells, the non-ciliated, non-mucous secretory cells predominant in lung bronchioles, and by other epithelia which communicate with the external environment. On top of sequestering pro-inflammatory mediators and carcinogens, Uteroglobin is implicated in the inhibition of cell migration and invasion, platelet aggregation, and T cell differentiation. SCGB1A1 gene defects are associated with a susceptibility to asthma.

Description

Uteroglobin Mouse Recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 75 amino acids and having a molecular mass of 16.7 kDa. SCGB1A1 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The Uteroglobin protein was lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized SCGB1A1 in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Uteroglobin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution SCGB1A1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 98.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

DICPGFLQVL EALLMESESG YVASLKPFPN GSDLQNAGTQ LKRLVDTLPQ ETRINIMKLT EKILTSPLCK QDLRF

Activity

The ED50 as determined by the ability of the immobilized protein to support the adhesion of the A549 human lung carcinoma cells is less than 5.0 µg/ml, corresponding to a specific activity of > 200 IU/mg.

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Usage

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