



## Uteroglobin, human recombinant

**Catalog No:** 97651  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** Uteroglobin, Clara cell phospholipid-binding protein, CCPBP, Clara cells 10 kDa secretory protein, CC10, Secretoglobin family 1A member 1, Urinary protein 1, UP-1, UP1, Urine protein 1, SCGB1A1, CCSP, UGB, CC16

### 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 Human Recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 70 amino acids and having a molecular mass of 15.8 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 H<sub>2</sub>O 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

EICPSFQRVI ETLMLDTPSS YEAAEMELFSP DQDMREAGQ LKKLVDTLPQ KPRESIIKLM EKIAQSSLN

### 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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