# UGRP1 (1B2): sc-517117



The Power to Question

### **BACKGROUND**

Uteroglobin-related protein 1 (UGRP1) is a 93-amino acid secretory protein that is mainly expressed in lung Clara-like epithelial cells, with low levels of expression in the thyroid. The homodimeric UGRP1 may play an anti-inflammatory role in lung inflammation, though the mechanism is still unknown. A macrophage scavenger receptor with collagenous structure (MARCO) acts as a receptor for UGRP1 and may be involved in pathogen clearance in the lung. UGRP1 has a binding site for bacterial lipopolysaccharide (LPS). It is downregulated in antigen-induced inflamed airways, such as allergic asthma, but is upregulated in cystic fibrosis, and interleukin-9 and interleukin-5 modulate UGRP1 expression. UGRP1 may be a therapeutic candidate for treating various sources of lung inflammation.

## **REFERENCES**

- 1. Niimi, T., et al. 2001. UGRP1, a uteroglobin/Clara cell secretory proteinrelated protein, is a novel lung-enriched downstream target gene for the T/EBP/NKX2.1 homeodomain transcription factor. Mol. Endocrinol. 15: 2021-2036.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606531. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 3. Bin, L.H., et al. 2003. Identification of uteroglobin-related protein 1 and macrophage scavenger receptor with collagenous structure as a lung-specific ligand-receptor pair. J. Immunol. 171: 924-930.
- Chiba, Y., et al. 2004. Decreased expression of uteroglobin-related protein 1 in inflamed mouse airways is mediated by IL-9. Am. J. Physiol. Lung Cell. Mol. Physiol. 287: L1193-L1198.
- Chiba, Y., et al. 2004. Interleukin-5 reduces the expression of uteroglobinrelated protein (UGRP) 1 gene in allergic airway inflammation. Immunol. Lett. 97: 123-129.
- Srisodsai, A., et al. 2004. Interleukin-10 induces uteroglobin-related protein (UGRP) 1 gene expression in lung epithelial cells through homeodomain transcription factor T/EBP/NKX2.1. J. Biol. Chem. 279: 54358-54368.
- 7. Batra, J., et al. 2005. Uteroglobin-related protein 1(UGRP1) gene polymorphisms and atopic asthma in the Indian population. Int. Arch. Allergy Immunol. 136: 1-6.
- Chiba, Y., et al. 2006. Uteroglobin-related protein 1 expression suppresses allergic airway inflammation in mice. Am. J. Respir. Crit. Care Med. 173: 958-964.

## **CHROMOSOMAL LOCATION**

Genetic locus: SCGB3A2 (human) mapping to 5q32.

### **SOURCE**

UGRP1 (1B2) is a mouse monoclonal antibody raised against amino acids 1-93 representing full length UGRP1 of human origin.

## **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### **PRODUCT**

Each vial contains 100  $\mu g \ lgG_{2a}$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## **APPLICATIONS**

UGRP1 (1B2) is recommended for detection of UGRP1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

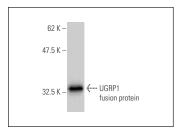
Suitable for use as control antibody for UGRP1 siRNA (h): sc-61754, UGRP1 shRNA Plasmid (h): sc-61754-SH and UGRP1 shRNA (h) Lentiviral Particles: sc-61754-V.

Molecular Weight of UGRP1: 14 kDa.

#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>IM</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

### **DATA**



UGRP1 (1B2): sc-517117. Western blot analysis of human recombinant UGRP1 fusion protein.

# **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.