

# UGRP1 (K-12): sc-48320

## 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 down-regulated 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

- Niimi, T., Keck-Waggoner, C.L., Popescu, N.C., Zhou, Y., Levitt, R.C. and Kimura, S. 2001. UGRP1, a uteroglobin/Clara cell secretory protein-related 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/>
- Bin, L.H., Nielson, L.D., Liu, X., Mason, R.J. and Shu, H.B. 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., Kusakabe, T. and Kimura, S. 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: L1193-1198.
- Chiba, Y., Srisodsai, A., Supavilai, P. and Kimura, S. 2004. Interleukin-5 reduces the expression of uteroglobin-related protein (UGRP) 1 gene in allergic airway inflammation. *Immunol. Lett.* 97: 123-129.

## CHROMOSOMAL LOCATION

Genetic locus: SCGB3A2 (human) mapping to 5q32; Scgb3a2 (mouse) mapping to 18 C-D.

## SOURCE

UGRP1 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UGRP1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48320 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

UGRP1 (K-12) is recommended for detection of UGRP1 of mouse, rat and 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) 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 siRNA (m): sc-61755, UGRP1 shRNA Plasmid (h): sc-61754-SH, UGRP1 shRNA Plasmid (m): sc-61755-SH, UGRP1 shRNA (h) Lentiviral Particles: sc-61754-V and UGRP1 shRNA (m) Lentiviral Particles: sc-61755-V.

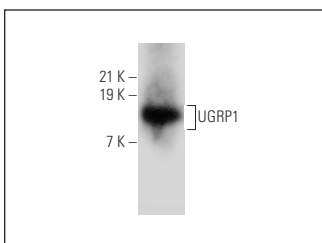
Molecular Weight of UGRP1: 14 kDa.

Positive Controls: rat lung extract: sc-2396.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ 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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



UGRP1 (K-12): sc-48320. Western blot analysis of UGRP1 expression in rat lung tissue extract.

## STORAGE

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

**MONOS**  
Satisfaction  
Guaranteed

Try **UGRP1 (1B2): sc-517117**, our highly recommended monoclonal alternative to UGRP1 (K-12).