



## UGRP2 (S-15): sc-49567

### BACKGROUND

Uteroglobin proteins (UGRPs) are members of the uteroglobin/Clara cell secretory protein family, officially termed secretoglobins, that bind specifically to progesterone with high affinity. UGRP functions to regulate the concentration of progesterone that is targeting the blastocyst. UGRP2, also referred to as high in normal-1 (HIN-1) or secretoglobin 3A1, acts as a potential growth inhibitory cytokine and is highly expressed in the human trachea, followed by salivary gland, lung and mammary gland. Expression of UGRP2 is increased by retinoic acid, thereby causing mucinous differentiation in primary human bronchial epithelial cells. UGRP2 may also have a role in regulating the terminally differentiated proximal epithelial airway. UGRP2 expression is enhanced by interleukin (IL)-4 and IL-13 through Stat6 binding to the proximal Stat-binding element that resides in the promoter of the UGRP2 gene. Mutations in the UGRP2 gene, especially silencing with methylation, are found in the majority of breast carcinomas.

### REFERENCES

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3. Silver, D.P., et al. 2003. HIN-1 and the nosology of breast cancer. *Cancer Biol. Ther.* 2: 564-565.
4. Krop, I., et al. 2004. Frequent HIN-1 promoter methylation and lack of expression in multiple human tumor types. *Mol. Cancer Res.* 2: 489-494.
5. Marchetti, A. et al. 2004. Down regulation of high in normal-1 (HIN-1) is a frequent event in stage I non-small cell lung cancer and correlates with poor clinical outcome. *Clin. Cancer Res.* 10: 1338-1343.
6. Lehmann, U. et al. 2005. Distinct methylation patterns of benign and malignant liver tumors revealed by quantitative methylation profiling. *Clin. Cancer Res.* 11: 3654-3660.
7. Shigematsu, H. et al. 2005. Aberrant methylation of HIN-1 (high in normal-1) is a frequent event in many human malignancies. *Int. J. Cancer* 113: 600-604.
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### CHROMOSOMAL LOCATION

Genetic locus: SCGB3A1 (human) mapping to 5q35; Scgb3a1 (mouse) mapping to 11 B1.2.

### RESEARCH USE

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

### SOURCE

UGRP2 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of UGRP2 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49567 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

UGRP2 (S-15) is recommended for detection of UGRP2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 UGRP2 siRNA (h): sc-61756.

Molecular Weight of UGRP2: 10 kDa.

### 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) 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.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.