

Uroguanylin (C-15): sc-32578

BACKGROUND

The family of guanylin regulatory peptides, including guanylin and Uroguanylin, are strongly expressed in intestinal mucosa and regulate intestinal fluid secretion during digestion. Guanylins are also involved in acid neutralization and the regulation of membrane-bound guanylate cyclase signaling molecules. Guanylin and Uroguanylin are secreted primarily in the stomach, intestine and colon. Uroguanylin is an endogenous activator of intestinal guanylate cyclase. It is a paracrine and/or autocrine regulator of intestinal water and salt transport. Uroguanylin stimulates intestinal guanylate cyclase through the same receptor binding region as the heat-stable enterotoxins. Uroguanylin is involved in the regulation of intestinal fluid and electrolyte transport.

REFERENCES

1. Kita, T., et al. 1994. Characterization of human uroguanylin: a member of the guanylin peptide family. *Am. J. Physiol.* 266: F342-F348.
2. Hess, R., et al. 1995. GCAP-II: isolation and characterization of the circulating form of human uroguanylin. *FEBS Lett.* 374: 34-38.
3. Hill, O., et al. 1995. A new human guanylate cyclase-activating peptide (GCAP-II, uroguanylin): precursor cDNA and colonic expression. *Biochim. Biophys. Acta* 1253: 146-149.
4. Miyazato, M., et al. 1996. Cloning and characterization of a cDNA encoding a precursor for human uroguanylin. *Biochem. Biophys. Res. Commun.* 219: 644-648.
5. Marx, U.C., et al. 1998. One peptide, two topologies: structure and inter-conversion dynamics of human uroguanylin isomers. *J. Pept. Res.* 52: 229-240.
6. Forte, L.R., et al. 2000. Guanylin peptides: renal actions mediated by cyclic GMP. *Am. J. Physiol. Renal Physiol.* 278: F180-F191.
7. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.

CHROMOSOMAL LOCATION

Genetic locus: GUCA2B (human) mapping to 1p34.2; Guca2b (mouse) mapping to 4 D2.1.

SOURCE

Uroguanylin (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Uroguanylin 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-32578 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

Uroguanylin (C-15) is recommended for detection of Uroguanylin of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Uroguanylin (C-15) is also recommended for detection of Uroguanylin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Uroguanylin siRNA (h): sc-44592, Uroguanylin siRNA (m): sc-44593, Uroguanylin shRNA Plasmid (h): sc-44592-SH, Uroguanylin shRNA Plasmid (m): sc-44593-SH, Uroguanylin shRNA (h) Lentiviral Particles: sc-44592-V and Uroguanylin shRNA (m) Lentiviral Particles: sc-44593-V.

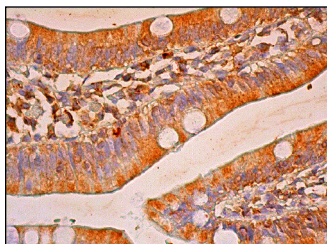
Molecular Weight of Uroguanylin: 12 kDa.

Positive Controls: rat small intestine tissue extract: sc-364811.

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Uroguanylin (C-15): sc-32578. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells and interstitial cells.

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 or our catalog for detailed protocols and support products.