SANTA CRUZ BIOTECHNOLOGY, INC.

HMW-Guanylin (N-16): sc-33832

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Guanylin is also detected in plasma. Guanylin is an endogenous activator of intestinal guanylate cyclase. It stimulates intestinal guanylate cyclase through the same receptor binding region as the heat-stable enterotoxins. Gut enterochromaffin cells synthesize guanylin to be a prohormone of 115 amino acids which is then is processed to the molecular form of 94 amino acids. This 10kDa form is found circulating in the blood.

REFERENCES

1. Currie, M.G., et al. 1992. Guanylin: an endogenous activator of intestinal guanylate cyclase. Proc. Natl. Acad. Sci. USA 89: 947-951.
2. de Sauvage, F.J., et al. 1992. Precursor structure, expression and tissue distribution of human Guanylin. Proc. Natl. Acad. Sci. USA 89: 9089-9093.

CHROMOSOMAL LOCATION

Genetic locus: GUCA2A (human) mapping to 1p34.2.

SOURCE

HMW-Guanylin (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HMW-Guanylin 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-33832 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

HMW-Guanylin (N-16) is recommended for detection of HMW-Guanylin 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), 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).

HMW-Guanylin (N-16) is also recommended for detection of HMW-Guanylin in additional species, including equine, canine and porcine.

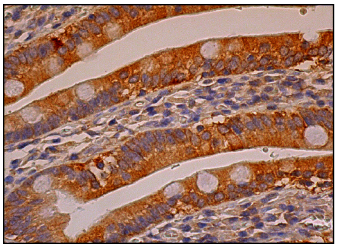
Suitable for use as control antibody for HMW-Guanylin siRNA (h): sc-45332, HMW-Guanylin shRNA Plasmid (h): sc-45332-SH and HMW-Guanylin shRNA (h) Lentiviral Particles: sc-45332-V.

Molecular Weight of HMW-Guanylin: 13 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



HMW-Guanylin (N-16): sc-33832. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular 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.