PRODUCT INFORMATION

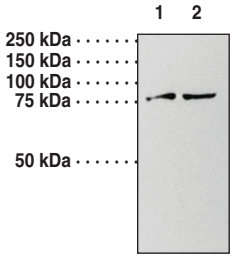
Guanylate Cyclase α subunit (soluble) Polyclonal Antibody

Item No. 160895

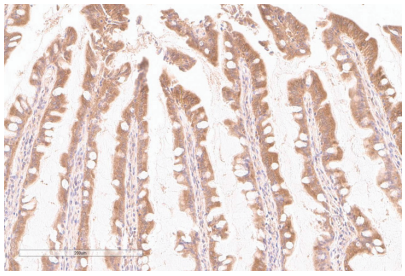
Overview and Properties

Contents: This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
Synonyms: GUCY1A1, sGC α_1 subunit
Immunogen: Peptide from the internal region of human protein
Species Reactivity: (+) Human, bovine, and mouse; other species not tested
Uniprot No.: Q02108
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥3 years
Storage Buffer: PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host: Rabbit
Application: Western blot (WB) and Immunohistochemistry (IHC); the recommended starting dilution for WB is 1:200 and 1:80 for IHC. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Mouse lung 10,000 g supernatant (40 µg)
Lane 2: Mouse lung 10,000 g supernatant (70 µg)



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human small intestine tissue after heat-induced antigen retrieval in pH 6.0 citrate buffer. After incubation with Cayman's Guanylate Cyclase α subunit (soluble) Polyclonal Antibody, (Item No. 160895), at a 1:80 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

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PRODUCT INFORMATION

Description

Soluble guanylate cyclase is a heterodimeric enzyme, composed of α and β subunits, that synthesizes cGMP from GTP. The enzyme is activated by the binding of nitric oxide or carbon monoxide to the heme group of the enzyme.[1] Chronic hypoxia upregulates soluble guanylate expression in rat lung.[2] The α_1 subunit contains 690-717 amino acids and has a molecular mass of 77-82 kDa.[3-5] The cloned β_1 subunit of guanylate cyclase from human, bovine, and rat sources contains 619 amino acids and has a molecular mass of approximately 70,000.[3,6,7]

References

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4. Nakane, M., Arai, K., Saheki, S., *et al.* Molecular cloning and expression of cDNAs coding for soluble guanylate cyclase from rat lung. *J. Biol. Chem.* **265(28)**, 16841-16845 (1990).
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6. Koesling, D., Herz, J., Gausepohl, H., *et al.* The primary structure of the 70 kDa subunit of bovine soluble guanylate cyclase. *FEBS Lett.* **239(1)**, 29-34 (1988).
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