

Product datasheet for **AP20764PU-N**

GUCY1A1 Rabbit Polyclonal Antibody

Product data:

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| Product Type: | Primary Antibodies |
| Applications: | IHC, WB |
| Recommended Dilution: | Western blot: 1/500-1/1000. Immunohistochemistry on Paraffin Sections: 1/50-1/200. |
| Reactivity: | Human, Mouse, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Immunogen: | Synthetic peptide, corresponding to amino acids 400-450 of Human GCS- α -1. |
| Specificity: | This antibody detects endogenous levels of GCS-alpha-1 protein. (region surrounding Asp423) |
| Formulation: | Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% by SDS-PAGE) Preservative: 15 mM Sodium Azide |
| Concentration: | 1.0 mg/ml |
| Purification: | Affinity-chromatography using epitope-specific immunogen |
| Conjugation: | Unconjugated |
| Storage: | Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. |
| Stability: | Shelf life: one year from despatch. |
| Predicted Protein Size: | ~ 77 kDa |
| Gene Name: | guanylate cyclase 1, soluble, alpha 3 |
| Database Link: | Entrez Gene 2982 Human Q02108 |



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Background:

Guanylate cyclases belong to the adenylyl cyclase class-4/guanylyl cyclase family. There are two forms of guanylate cyclase, a soluble form (GCS or sGC), which act as receptors for nitric oxide and a membrane-bound receptor form (GC), which are peptide hormone receptors. The GC-C protein is composed of an extracellular domain, a single transmembrane domain, and a cytoplasmic region consisting of a kinase-like domain and a catalytic domain. It is expressed as two differentially glycosylated forms, a 130 kDa precursor form present in the endoplasmic reticulum and a 145 kDa form present on the plasma membrane. Ligand binding to the extracellular domain of GC-C promotes the accumulation of cGMP. GC-C acts as the receptor for heatstable enterotoxins, small peptides secreted by some pathogenic strains of *E. coli* that cause severe secretory diarrhea. GC-C also binds to guanylin and uroguanylin peptides, which modulate renal function in response to oral salt load.

Synonyms:

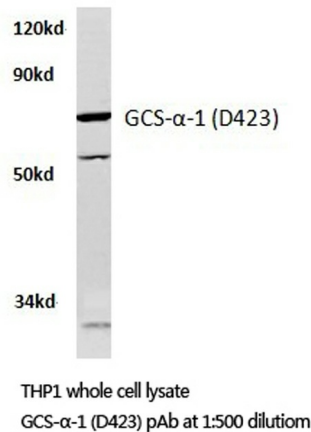
GCS-alpha-3, GCS-alpha-1, GUC1A3, GUCSA3, GUCY1A1, sGC alpha

Protein Families:

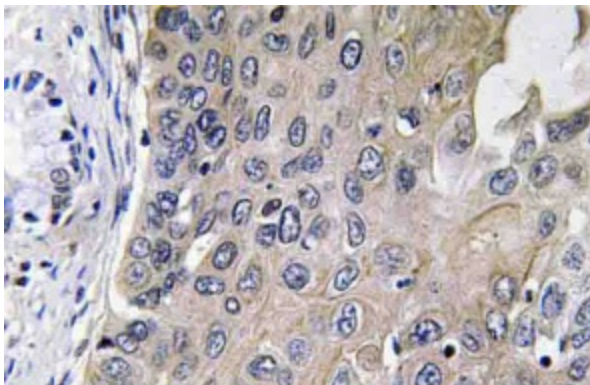
Druggable Genome

Protein Pathways:

Gap junction, Long-term depression, Purine metabolism, Vascular smooth muscle contraction

Product images:

Western blot analysis of GCS-alpha-1 antibody in extracts from THP1 cells.



Immunohistochemistry analysis of GCS-alpha-1 antibody in paraffin-embedded human lung carcinoma tissue.