

## Product datasheet for **AP20764PU-S**

### **GUCY1A1 Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunohistochemistry on Paraffin Sections:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 400-450 of Human GCS- $\alpha$ -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:	<a href="#">Entrez Gene 2982 Human Q02108</a>



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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:**

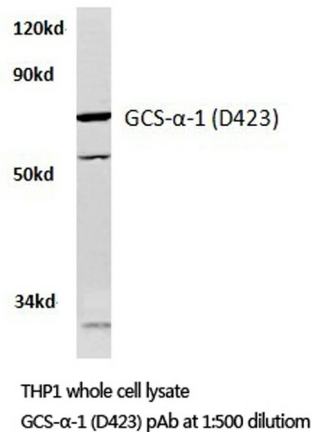
GCS-alpha-3, GCS-alpha-1, GUC1A3, GUCSA3, GUCY1A1, sGC alpha

**Protein Families:**

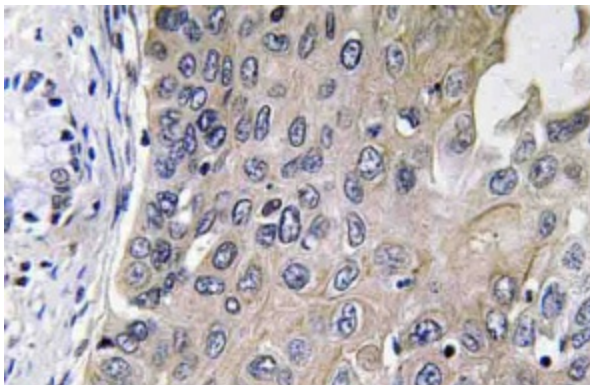
Druggable Genome

**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.