

Product datasheet for **AP20572PU-N**

GCS-beta-2 / GUCY1B2 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC
Recommended Dilution:	Immunohistochemistry on paraffin sections : 1/50 – 1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of GCS-beta-2 protein. (region surrounding Val102)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff – Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
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:	~ 70 kDa
Database Link:	<u>O75343</u>

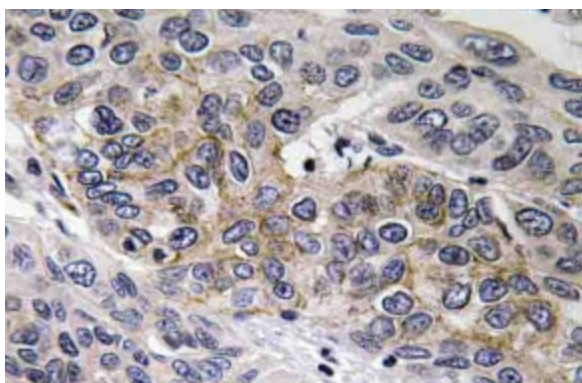


Background:

Guanylate cyclases belong to the adenylyl cyclase class-4/guanylyl cyclase family. There are two forms of guanylate cyclase. The soluble form, known as GCS or sGC, act as receptors for nitric oxide. The membrane-bound receptor form, known as GC, are peptide hormone receptors. GCS is a cGMP-synthesizing enzyme, which is the major receptor for the neurotransmitter nitric oxide (NO). It plays a crucial role in smooth muscle contractility, platelet reactivity and neurotransmission. GCS is a heme containing heterodimer, consisting of one 72 kDa alpha subunit and one 65 kDa beta subunit. The heme moiety mediates NO activation, and this heme group also binds carbon monoxide, which weakly stimulates the enzyme. Both NO and CO stimulation are enhanced by the allosteric activator 3-(5'-hydroxymethyl-2'furyl)-benzyl-indazole, YC-1. YC-1 can also stimulate GCS in a NO-independent manner. Both alpha and beta subunits are required for cGMP generation, and at least two isoforms exist for each subunit. Heterodimers consisting of alpha-1/beta-1 and alpha-2/beta-1 have been identified, and both display similar enzymatic activity. The distribution of the beta-2 subunit seems to be much more restricted than the beta-1 subunit, with predominant expression in kidney and liver.

Synonyms:

Guanylate cyclase soluble subunit beta-2

Product images:


Immunohistochemistry (IHC) analyzes of GCS-beta-2 antibody (Cat.-No.: AP20572PU-N) in paraffin-embedded human lung carcinoma tissue.