
Guanylate Cyclase Rabbit pAb

Catalog Number: bs-16371R

Target Protein: Guanylate Cyclase

Concentration: 1mg/ml

Form: Liquid

Host: Rabbit

Clonality: Polyclonal

Isotype: IgG

Applications: IHC-P (1:100-500), IHC-F (1:100-500), IF (1:100-500), ICC/IF (1:100-500), ELISA (1:5000-10000)

Reactivity: (predicted:Human, Mouse, Rat, Pig, Dog, Horse)

Predicted MW: 82 kDa

Entrez Gene: 2974

Swiss Prot: O75343

Source: KLH conjugated synthetic peptide derived from human Guanylate Cyclase: 651-750/732.

Purification: affinity purified by Protein A

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

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 α subunit and one β 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 α and β subunits are required for cGMP generation, and at least two isoforms exist for each subunit. Heterodimers consisting of α -1/ β -1 and α -2/ β -1 have been identified, and both display similar enzymatic activity. The distribution of the β -2 subunit seems to be much more restricted than the β -1 subunit, with predominant expression in kidney and liver