**bs-16371R** **[ Primary Antibody ]**

# Guanylate Cyclase Rabbit pAb

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## DATASHEET

**Host:** Rabbit **Isotype:** IgG

**Clonality:** Polyclonal

**GeneID:** 2974 **SWISS:** O75343

**Target:** Guanylate Cyclase

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

**Purification:** affinity purified by Protein A

**Concentration:** 1mg/ml

**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 ?subunit and one beta subunit. The heme moeity 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

**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

**Subcellular Location:** Cytoplasm