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GUCY1A3 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2286a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	Q02108
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3G6B2
Isotype	IgG1
Calculated MW	77452
Description	Soluble guanylate cyclases are heterodimeric proteins that catalyze the conversion of GTP to 3',5'-cyclic GMP and pyrophosphate. The protein encoded by this gene is an alpha subunit of this complex and it interacts with a beta subunit to form the guanylate cyclase enzyme, which is activated by nitric oxide. Several transcript variants encoding a few different isoforms have been found for this gene.
Immunogen	Purified recombinant fragment of human GUCY1A3 (AA: 22-214) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	2982
Other Names	Guanylate cyclase soluble subunit alpha-3, GCS-alpha-3, 4.6.1.2, GCS-alpha-1, Soluble guanylate cyclase large subunit, GUCY1A3, GUC1A3, GUCSA3, GUCY1A1
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GUCY1A3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GUCY1A1 (HGNC:4685)

Function	Alpha subunit of soluble guanylate cyclase (sGC), a key enzyme in nitric oxide (NO) signaling. sGC functions as a heterodimer consisting of one alpha and one beta subunit. It serves as the primary intracellular receptor for NO, which binds to a heme prosthetic group located on the beta subunit. Upon NO binding, sGC catalyzes the conversion of GTP into cyclic GMP (cGMP), thereby transmitting the NO signal into an ubiquitous intracellular second messenger.
Cellular Location	Cytoplasm.
Tissue Location	Detected in brain cortex and lung (at protein level).

References

1.Mol Endocrinol. 2012 Feb;26(2):292-307. 2.J Biol Inorg Chem. 2011 Dec;16(8):1227-39.

Images

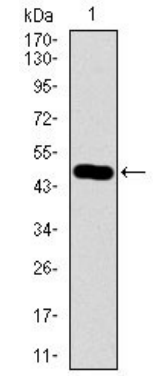


Figure 1: Western blot analysis using GUCY1A3 mAb against human GUCY1A3 recombinant protein. (Expected MW is 47.2 kDa)

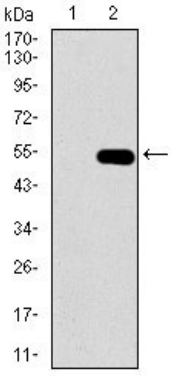


Figure 2: Western blot analysis using GUCY1A3 mAb against HEK293 (1) and GUCY1A3 (AA: 22-214)-hIgGFc transfected HEK293 (2) cell lysate.

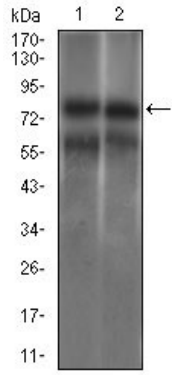
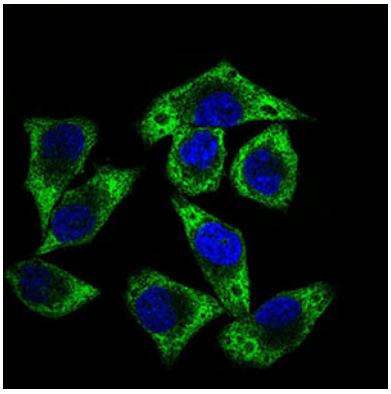


Figure 3: Western blot analysis using GUCY1A3 mouse mAb against HEK293 (1) and Jurkat (2) cell lysate.

Figure 4: Immunofluorescence analysis of HepG2 cells using GUCY1A3 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.



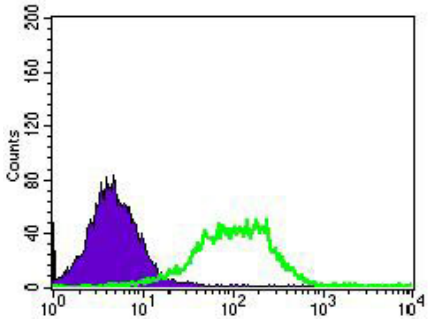


Figure 5: Flow cytometric analysis of HEK293 cells using GUCY1A3 mouse mAb (green) and negative control (purple).

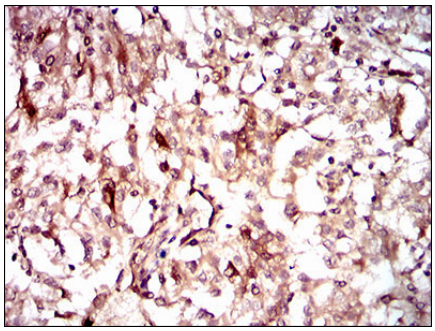


Figure 6: Immunohistochemical analysis of paraffin-embedded renal cancer tissues using GUCY1A3 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.