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Guanylyl Cyclase alpha 1 (GUCY1A3) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7134A

Product Information

Application	WB, IHC-P, E
Primary Accession	Q02108
Reactivity	Human
Predicted	Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB07757
Calculated MW	77452
Antigen Region	269-300

Additional Information

Gene ID	2982
Other Names	Guanylate cyclase soluble subunit alpha-3, GCS-alpha-3, GCS-alpha-1, Soluble guanylate cyclase large subunit, GUCY1A3, GUC1A3, GUCSA3, GUCY1A1
Target/Specificity	This Guanylyl Cyclase alpha 1 (GUCY1A3) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 269-300 amino acids from the N-terminal region of human Guanylyl Cyclase alpha 1 (GUCY1A3).
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Guanylyl Cyclase alpha 1 (GUCY1A3) Antibody (N-term) 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).

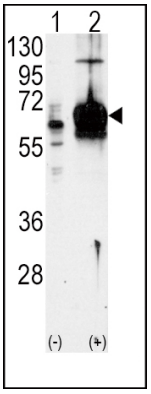
Background

Soluble guanylate cyclase (sGC), a heterodimeric protein consisting of an alpha and a beta subunit, catalyzes the conversion of GTP to the second messenger cGMP and functions as the main receptor for nitric oxide and nitrovasodilator drugs.

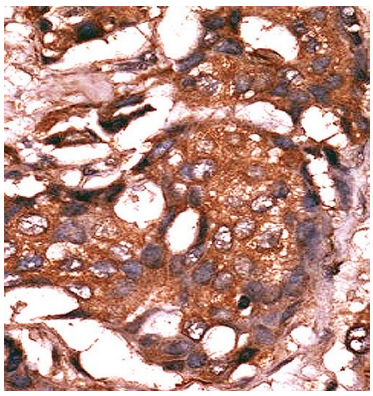
References

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Zhou, Y., et al., Gene 245(2):319-328 (2000).
Papapetropoulos, A., et al., J. Cell. Physiol. 167(2):213-221 (1996).
Giuili, G., et al., Hum. Genet. 91(3):257-260 (1993).
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Images

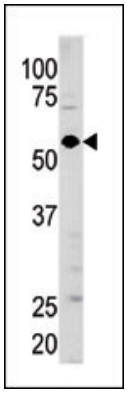


Western blot analysis of GUCY1A3 (arrow) using GUCY1A3 Antibody (N-term) (Cat.#AP7134a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the GUCY1A3 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Western blot analysis of anti-GUCY1A3 Pab (Cat. #AP7134a) in mouse brain tissue lysate (35ug/lane). GUCY1A3(arrow) was detected using the purified Pab.



Citations

- Global gene expression profiling of somatic motor neuron populations with different vulnerability identify molecules and pathways of degeneration and protection.

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