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Anti-GUCY1B3 Antibody

Catalog # AP59575

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q02153
Reactivity	Human, Mouse, Rat, Pig, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70514

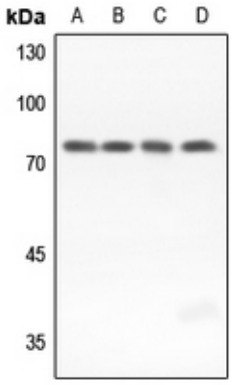
Additional Information

Gene ID	2983
Other Names	GUC1B3; GUCSB3; GUCY1B1; Guanylate cyclase soluble subunit beta-1; GCS-beta-1; Guanylate cyclase soluble subunit beta-3; GCS-beta-3; Soluble guanylate cyclase small subunit
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human GUCY1B3. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

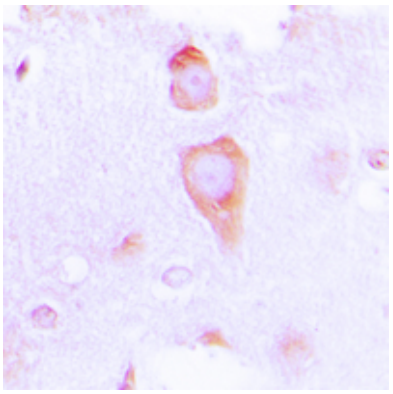
Protein Information

Name	GUCY1B1 (HGNC:4687)
Function	Beta 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 {ECO:0000250|UniProtKB:P16068}.
Tissue Location	Detected in brain cortex and cerebellum (at protein level).

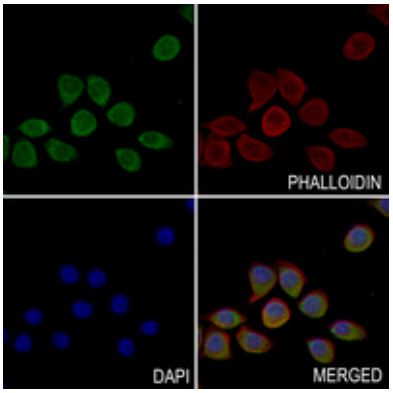
Images



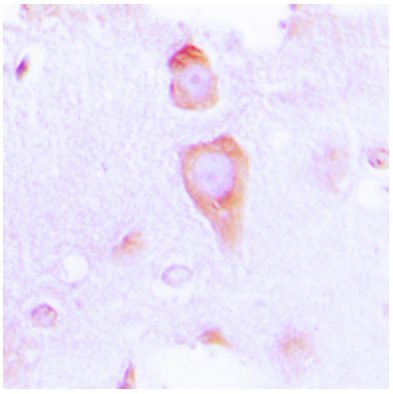
Western blot analysis of GUCY1B3 expression in mouse lung (A), mouse kidney (B), rat lung (C), rat kidney (D) whole cell lysates. (Predicted band size: 70 kD; Observed band size: 70 kD)



Immunohistochemical analysis of GUCY1B3 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of GUCY1B3 staining in PCCL cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Immunohistochemical analysis of GUCY1B3 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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