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RHCG Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19157c

Product Information

Application	WB, E
Primary Accession	Q9UBD6
Other Accession	NP_057405.1
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB39190
Calculated MW	53179
Antigen Region	184-213

Additional Information

Gene ID	51458
Other Names	Ammonium transporter Rh type C, Rh glycoprotein kidney, Rhesus blood group family type C glycoprotein, Rh family type C glycoprotein, Rh type C glycoprotein, Tumor-related protein DRC2, RHCG, C15orf6, CDRC2, PDRC2, RHGK
Target/Specificity	This RHCG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 184-213 amino acids from the Central region of human RHCG.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	RHCG Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RHCG

Synonyms	C15orf6, CDRC2, PDRC2, RHGK
Function	Ammonium transporter involved in the maintenance of acid-base homeostasis. Transports ammonium and its related derivative methylammonium across the plasma membrane of epithelial cells likely contributing to renal transepithelial ammonia transport and ammonia metabolism. Postulated to primarily mediate an electroneutral bidirectional transport of NH3 ammonia species according to a mechanism that implies interaction of an NH4(+) ion with acidic residues of the pore entry followed by dissociation of NH4(+) into NH3 and H(+). As a result NH3 transits through the central pore and is protonated on the extracellular side reforming NH4(+) (PubMed:11062476, PubMed:14761968, PubMed:15929723, PubMed:16477434, PubMed:16580862, PubMed:24077989). May act as a CO2 channel providing for renal acid secretion (PubMed:24077989).
Cellular Location	Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Note=Also detected at the basolateral membrane and in subapical vesicles.
Tissue Location	Expressed in brain, testis, placenta, pancreas, esophagus and prostate. Expressed in squamous epithelial tissues (at protein level). Expressed in kidney.

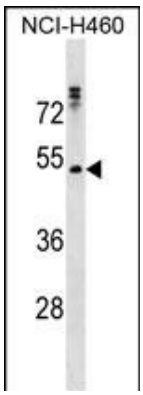
Background

RHCG functions as an electroneutral and bidirectional ammonium transporter. May regulate transepithelial ammonia secretion.

References

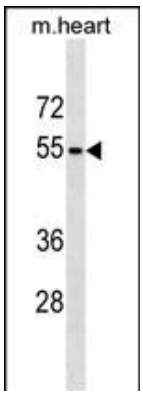
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Gruswitz, F., et al. Proc. Natl. Acad. Sci. U.S.A. 107(21):9638-9643(2010)
Mouro-Chanteloup, I., et al. PLoS ONE 5 (1), E8921 (2010) :
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Han, K.H., et al. Am. J. Physiol. Lung Cell Mol. Physiol. 297 (1), L153-L163 (2009) :

Images



RHCG Antibody (Center) (Cat. #AP19157c) western blot analysis in NCI-H460 cell line lysates (35ug/lane).This demonstrates the RHCG antibody detected the RHCG protein (arrow).

RHCG Antibody (Center) (Cat. #AP19157c) western blot analysis in mouse heart tissue lysates (35ug/lane).This demonstrates the RHCG antibody detected the RHCG protein (arrow).



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