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S13A5 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4740c

Product Information

Application	WB, E
Primary Accession	Q86YT5
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB25254
Calculated MW	63062
Antigen Region	151-180

Additional Information

Gene ID	284111
Other Names	Solute carrier family 13 member 5, Na(+)/citrate cotransporter, NaCT, Sodium-coupled citrate transporter, Sodium-dependent citrate transporter, SLC13A5, NACT
Target/Specificity	This S13A5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 151-180 amino acids from the Central region of human S13A5.
Dilution	WB~~1:2000 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	S13A5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC13A5
Synonyms	NACT
Function	High-affinity sodium/citrate cotransporter that mediates the entry of citrate

	into cells, which is a critical participant of biochemical pathways (PubMed:12445824, PubMed:12826022, PubMed:26324167, PubMed:26384929, PubMed:30054523, PubMed:33597751). May function in various metabolic processes in which citrate has a critical role such as energy production (Krebs cycle), fatty acid synthesis, cholesterol synthesis, glycolysis, and gluconeogenesis (PubMed:12826022). Transports citrate into the cell in a Na(+)- dependent manner, recognizing the trivalent form of citrate (physiological pH) rather than the divalent form (PubMed:12445824, PubMed:12826022, PubMed:26324167, PubMed:26384929, PubMed:30054523, PubMed:33597751). Can recognize succinate as a substrate, but its affinity for succinate is several fold lower than for citrate (PubMed:26324167). The stoichiometry is probably 4 Na(+) for each carboxylate, irrespective of whether the translocated substrate is divalent or trivalent, rendering the process electrogenic (PubMed:12445824, PubMed:12826022). Involved in the regulation of citrate levels in the brain (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed most predominantly in the liver, with moderate expression detectable in the brain and testis

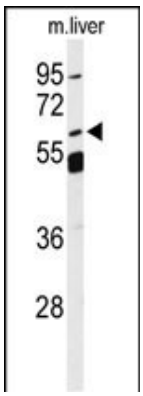
Background

S13A5 is a tricarboxylate plasma transporter with a preference for citrate.

References

Gopal, E., et al. Am. J. Physiol. Gastrointest. Liver Physiol. 292 (1), G402-G408 (2007)
Pajor, A.M. Pflugers Arch. 451(5):597-605(2006)
Inoue, K., et al. Biochem. J. 374 (PT 1), 21-26 (2003)

Images



Western blot analysis of S13A5 Antibody (Center) (Cat. #AP4740c) in mouse liver tissue lysates (35ug/lane). S13A5 (arrow) was detected using the purified Pab.