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SLC29A2 Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22096a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q14542
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Rabbit
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB55890
Calculated MW	50113

Additional Information

Gene ID	3177
Other Names	Equilibrative nucleoside transporter 2, 36 kDa nucleolar protein HNP36, Delayed-early response protein 12, Equilibrative nitrobenzylmercaptopurine riboside-insensitive nucleoside transporter, Equilibrative NBMPR-insensitive nucleoside transporter, Hydrophobic nucleolar protein, 36 kDa, Nucleoside transporter, ei-type, Solute carrier family 29 member 2, SLC29A2, DER12, ENT2, HNP36
Target/Specificity	This SLC29A2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 1-31 amino acids from human SLC29A2.
Dilution	WB~~1:2000 IHC-P~~1:100~500 FC~~1:25 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	SLC29A2 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC29A2 (HGNC:11004)

Synonyms	DER12, ENT2, HNP36
Function	Bidirectional uniporter involved in the facilitative transport of nucleosides and nucleobases, and contributes to maintaining their cellular homeostasis (PubMed:10722669, PubMed:12527552, PubMed:12590919, PubMed:16214850, PubMed:21795683, PubMed:9396714, PubMed:9478986). Functions as a Na(+)-independent, passive transporter (PubMed:9478986). Involved in the transport of nucleosides such as inosine, adenosine, uridine, thymidine, cytidine and guanosine (PubMed:10722669, PubMed:12527552, PubMed:12590919, PubMed:16214850, PubMed:21795683, PubMed:9396714, PubMed:9478986). Also able to transport purine nucleobases (hypoxanthine, adenine, guanine) and pyrimidine nucleobases (thymine, uracil) (PubMed:16214850, PubMed:21795683). Also mediates nicotinamide uptake supporting homeostasis and modulating its biological activities (PubMed:39885119). Can also transport urate (PubMed:40367900). Involved in nucleoside transport at basolateral membrane of kidney cells, allowing liver absorption of nucleoside metabolites (PubMed:12527552). Mediates apical nucleoside uptake into Sertoli cells, thereby regulating the transport of nucleosides in testis across the blood-testis-barrier (PubMed:23639800). Mediates both the influx and efflux of hypoxanthine in skeletal muscle microvascular endothelial cells to control the amount of intracellular hypoxanthine available for xanthine oxidase- mediated ROS production (By similarity).
Cellular Location	Apical cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Note=Localized to the apical membrane of Sertoli cells
Tissue Location	Highly expressed in skeletal muscle (PubMed:9478986). Expressed in liver, lung, placenta, brain, heart, kidney and ovarian tissues (PubMed:9478986). Expressed in testis at the blood-brain-barrier (PubMed:23639800).

Background

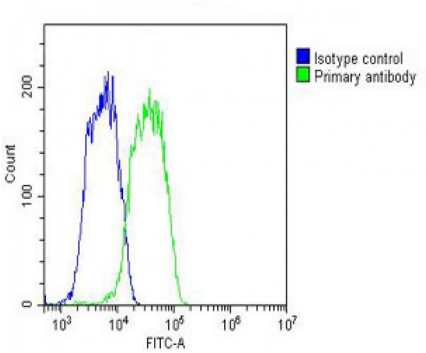
Mediates equilibrative transport of purine, pyrimidine nucleosides and the purine base hypoxanthine. Very less sensitive than SLC29A1 to inhibition by nitrobenzylthioinosine (NBMPR), dipyridamole, dilazep and draflazine.

References

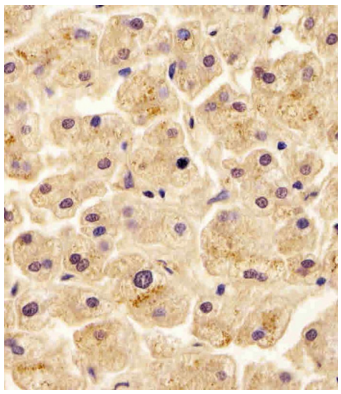
Williams J.B.,et al.Biochem. Biophys. Res. Commun. 213:325-333(1995).
Griffiths M.,et al.Biochem. J. 328:739-743(1997).
Crawford C.R.,et al.J. Biol. Chem. 273:5288-5293(1998).
Mangravite L.M.,et al.Am. J. Physiol. 284:F902-F910(2003).
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Images

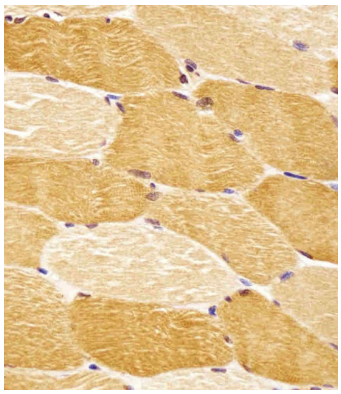
Overlay histogram showing HepG2 cells stained with AP22096a (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22096a, 1:25 dilution) for 60 min at 37ºC. The



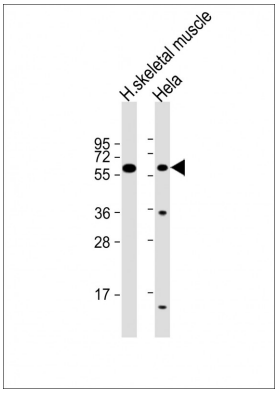
secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



AP22096a staining SLC29A2 in human liver tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



AP22096a staining SLC29A2 in human skeletal muscle tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



All lanes : Anti-SLC29A2 Antibody (N-Term) at 1:2000 dilution Lane 1: human skeletal muscle lysate Lane 2: Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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