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# SLC29A2 Antibody

Catalog # ASC11904

## Product Information

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| **Application** | WB, IHC, IF, E |
| **Primary Accession** | Q14542 |
| **Other Accession** | NP_001523, 38708299 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 50113 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | SLC29A2 antibody can be used for detection of SLC29A2 by Western blot at 1 - 2 g/ml. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL. |

## Additional Information

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| **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** | SLC29A2; SLC29A2 antibody is human specific. SLC29A2 antibody is predicted to not cross-react with other SLC29 proteins. |
| **Reconstitution & Storage** | SLC29A2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. |
| **Precautions** | SLC29A2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **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). |

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| | 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

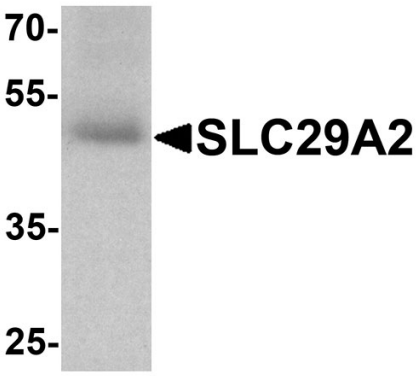
SLC29A2 is a member of the equilibrative nucleoside transporter family which plays a key role in nucleoside and nucleobase uptake for salvage pathways of nucleotide synthesis (1,2). SLC29A2 is a transmembrane glycoprotein that mediates the cellular uptake of nucleosides from the surrounding medium (3). As a nucleoside transporter, SLC29A2 plays an important role in the uptake of nucleoside-based anti-cancer drugs; polymorphisms of point mutations in the gene encoding this protein may affect the efficacy of these drugs (4).

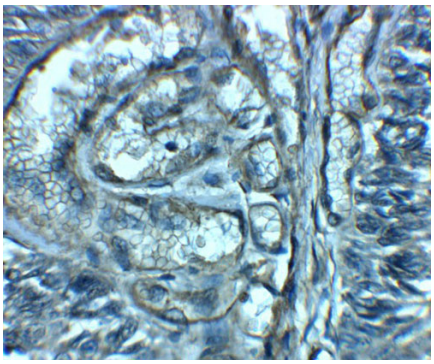
## References

Williams JB and Lanahan AA. A mammalian delayed-early response gene encodes HNP36, a novel, conserved nucleolar protein. Biochim. Biophys. Res. Commun. 1995; 213:325-33.
Young JD, Yao SY, Baldwin JM, et al. The human concentrative and equilibrative nucleoside transporter families, SLC28 and SLC29. Mol. Aspects. Med. 34:529-47.
Mangravite LM, Xiao G, and Giacomini KM. Localization of human equilibrative nucleoside transporters, hENT1 and hENT2, in renal epithelial cells. Am. J. Physiol. Renal Physiol. 284:F902-10.
Owen RP, Lagpacan LL, Taylor TR, et al. Functional characterization and haplotype analysis of polymorphisms in the human equilabrative nucleoside transporter, ENT2. Drug Metab. Dispos. 2006; 34:12-5.

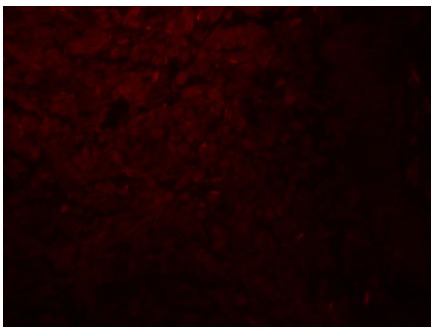
## Images

Western blot analysis of SLC29A2 in human bladder tissue lysate with SLC29A2 antibody at 1 µg/ml.



Immunohistochemistry of SLC29A2 in human bladder tissue with SLC29A2 antibody at 2.5 µg/mL.



Immunofluorescence of SLC29A2 in human bladder tissue with SLC29A2 antibody at 20 µg/ml.

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