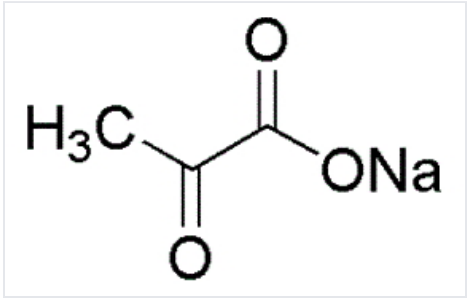
SLC5A8 Reagent – Pyruvic Acid Sodium Salt

PRODUCT OVERVIEW

Product Name	Sodium Pyruvate (SLC5A8), Reagent
Full Product Name	Sodium Pyruvate (Pyruvic Acid Sodium Salt)
Product Gene Name	SLC5A8 reagent
Form/Format	White to off-white, cystalline powder
Purity/Purification	Cell Culture Grade ~98.0%
Preparation and Storage	4 degree C
Molecular Weight	110.0
Chromosome Location	Chromosome: 12; NC_000012.11 (101549994..101604016, complement). Location: 12q23.1
OMIM	608044
3D Structure	ModBase 3D Structure for Q8N695
CAS Number	113-24-6
Molecular Formula	C3H3O3Na
Chloride	0.003%
Iron	0.001%
Sulfate	0.01%
Product Categories/Family for SLC5A8 reagent	Biochemicals; Biochem-Inorganic Reagents
Related Product Information for SLC5A8 reagent	MBS635309 is a reagent targeting SLC5A8. Also known as Sodium Pyruvate (Pyruvic Acid Sodium Salt).
Other Notes	Small volumes of SLC5A8 reagent vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Structure of SLC5A8 reagent
Structure of S5300|2-Oxopropanoic Acid Sodium Salt; Sodium Pyruvate; Sodium ?-Ketopropionate

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SLC5A8. It may not necessarily be applicable to this product.

NCBI GI #	296452898
NCBI GeneID	160728
NCBI Accession #	Q8N695.2
UniProt Primary Accession #	Q8N695
UniProt Secondary Accession #	Q2TB99; Q7Z2H9
UniProt Related Accession #	Q8N695
NCBI Official Full Name	Sodium-coupled monocarboxylate transporter 1
NCBI Official Synonym Full Names	solute carrier family 5 (sodium/monocarboxylate cotransporter), member 8
NCBI Official Symbol	SLC5A8
NCBI Official Synonym Symbols	AIT; SMCT; SMCT1
UniProt Protein Name	Sodium-coupled monocarboxylate transporter 1
UniProt Synonym Protein Names	Apical iodide transporter; Electrogenic sodium monocarboxylate cotransporter; Sodium iodide-related cotransporter; Solute carrier family 5 member 8
Protein Family	Sodium-coupled monocarboxylate transporter
UniProt Gene Name	SLC5A8
UniProt Synonym Gene Names	AIT; SMCT; SMCT1
UniProt Entry Name	SC5A8_HUMAN
NCBI Protein Information	sodium-coupled monocarboxylate transporter 1; apical iodide transporter; solute carrier family 5 member 8; sodium iodide-related cotransporter; electrogenic sodium monocarboxylate cotransporter; solute carrier family 5 (iodide transporter), member 8
NCBI Summary for SLC5A8	SLC5A8 has been shown to transport iodide by a passive mechanism (Rodriguez et al., 2002 [PubMed 12107270]) and monocarboxylates and short-chain fatty acids by a sodium-coupled mechanism (Gopal et al., 2004 [PubMed 15322102]). In kidney, SLC5A8 functions as a high-affinity sodium-coupled lactate transporter involved in reabsorption of lactate and maintenance of blood lactate levels (Thangaraju et al., 2006 [PubMed 16873376]).[supplied by OMIM, Dec 2008]
UniProt Comments for SLC5A8	SLC5A8: Acts as an electrogenic sodium (Na(+)) and chloride (Cl-)-dependent sodium-coupled solute transporter, including transport of monocarboxylates (short-chain fatty acids including L-lactate, D-lactate, pyruvate, acetate, propionate, valerate and butyrate), lactate, mocarboxylate drugs (nicotinate, benzoate, salicylate and 5-aminosalicylate) and ketone bodies (beta-D- hydroxybutyrate, acetoacetate and alpha-ketoisocaproate), with a Na(+):substrate stoichiometry of between 4:1 and 2:1. Catalyzes passive carrier mediated diffusion of iodide. Mediates iodide transport from the thyrocyte into the colloid lumen through the apical membrane. May be responsible for the absorption of D- lactate and monocarboxylate drugs from the intestinal tract. Acts as a tumor suppressor, suppressing colony formation in colon cancer, prostate cancer and glioma cell lines. May play a critical role in the entry of L-lactate and ketone bodies into neurons by a process driven by an electrochemical Na(+) gradient and hence contribute to the maintenance of the energy status and function of neurons. Belongs to the sodium:solute symporter (SSF) (TC 2.A.21) family. Protein type: Transporter, SLC family; Transporter; Membrane protein, multi-pass; Membrane protein, integral; Tumor suppressor; Apoptosis Chromosomal Location of Human Ortholog: 12q23.1 Cellular Component: apical plasma membrane; plasma membrane; integral to membrane Molecular Function: symporter activity Biological Process: apoptosis; sodium ion transport; ion transport; transmembrane transport
Research Articles on SLC5A8	**1.** These results suggest that DNA methylation in the SLC5A8 promoter region may suppress the expression of SLC5A8 in lung tumor.

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