



上海源叶生物科技有限公司
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产品名称: **GW604714X**

CAS 号: **853953-65-8**

产品货号: **S89848**

生物活性:

Description	GW604714X is a potent inhibitor of mitochondrial respiration supported by pyruvate but not other substrates. GW604714X is a highly specific mitochondrial pyruvate carrier (MPC) inhibitor with a $K_i < 0.1$ nM. GW604714X also inhibits L-lactate transport by the plasma membrane monocarboxylate transporter (MCT1), but at concentrations more than 4 orders of magnitude greater than the MPC[1].				
In Vitro	GW604714X inhibits the mitochondrial pyruvate carrier (MPC) with K_i value $< 0.1 \mu\text{M}$ in direct measurement of pyruvate transport into rat liver and yeast mitochondria[1]. Inhibitor titrations of pyruvate-dependent respiration by heart mitochondria gave values for the concentration of inhibitor binding sites and their K_i (nM) of 56.0 nM and 0.057 nM for the GW604714X[1]. GW604714X inhibits the transport of 0.5 mM [14C]-l-lactate into rat red blood cells, mediated by the monocarboxylate transporter MCT1. GW604714X at 10 μM reduces the initial rate of uptake to 30% of control values[1].				
Solvent&Solubility	细胞实验: DMF 中的溶解度 : 5.26 mg/mL (11.16 mM; 超声加热助溶)				
	Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
		1 mM	2.1211 mL	10.6054 mL	21.2107 mL
		5 mM	0.4242 mL	2.1211 mL	4.2421 mL
		10 mM	0.2121 mL	1.0605 mL	2.1211 mL
* 请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液; 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。 储备液的保存方式和期限: -80°C, 6 months; -20°C, 1 month. -80°C 储存时, 请在 6 个月内使用, -20°C 储存时, 请在 1 个月内使用。					
参考文献	[1]. John C W Hildyard, et al. Identification and characterisation of a new class of highly specific and potent inhibitors of the mitochondrial pyruvate carrier. Biochim Biophys Acta. Apr-May 2005;1707(2-3):221-30. [2]. Allen K. Bourdon, et al. Alzheimer's and Parkinson's Disease Novel Therapeutic Target: The Mitochondrial Pyruvate Carrier - Ligand Docking to Screen Natural Compounds Related to Classic Inhibitors. DOI:10.4018/IJKDB.2017070104				

完整储备液配制表:

请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液; 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。

储备液的保存方式和期限: -80°C, 6 months; -20°C, 1 month。-80°C 储存时, 请在 6 个月内使用, -20°C 储存时, 请在 1 个月内使用。

可选溶剂	质量 / 溶剂体积 / 浓度	1 mg	5 mg	10 mg	25 mg
DMF	1 mM	2.1211 mL	10.6054 mL	21.2107 mL	53.0268 mL
	5 mM	0.4242 mL	2.1211 mL	4.2421 mL	10.6054 mL



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	10 mM	0.2121 mL	1.0605 mL	2.1211 mL	5.3027 mL
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