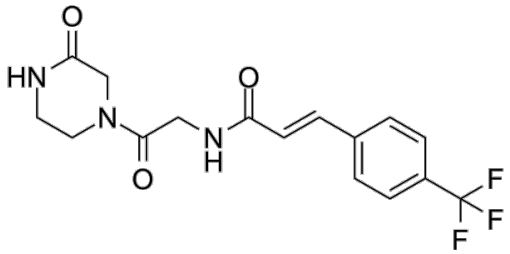
Product Data Sheet

Product Name: SLC6A19-IN-4
Cat. No.: GC81444

Chemical Properties

Cas. No.	2962069-39-0		
Formula	$C_{16}H_{16}F_3N_3O_3$	M.Wt	355.31
Solubility	DMSO: 50 mg/mL (140.72 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			



Background

SLC6A19-IN-4 is an allosteric-competitive and orally active B 0 AT1 inhibitor. SLC6A19-IN-4 inhibits both human and mouse B 0 AT1 with IC_{50} values of 513 nM and 295 nM, respectively. SLC6A19-IN-4 exhibits excellent metabolic stability. SLC6A19-IN-4 significantly increases urinary phenylalanine

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(Phe) excretion and reduces plasma Phe levels through dual inhibition of B 0 AT1 in both the intestine (reducing absorption) and kidney (promoting excretion) in vivo. SLC6A19-IN-4 can be used for phenylketonuria (PKU) and other disorders involving SLC6 -family transporters research [1].

In Vivo, SLC6A19-IN-4 (30 mg/kg, p.o., once) reduces intestinal Phe absorption promotes urinary excretion and lowers systemic Phe levels in male Pahenu2 mice carry a homozygous F263[1].

In Vitro, SLC6A19-IN-4 (1500-4000 nM) increases the Km for d5-Phe without affecting Vmax, indicating competitive inhibition (Km = 0.866, 5.19, 12.1 mM Vmax = 337, 351, 380 μmol/min/mg-protein) in the Jump-In TI platform cells expressing human SLC6A19 and human Collectrin[1]. SLC6A19-IN-4 revealed Kd = 123.1 nM for mock cell and mB0AT1 and ACE2-expressing cell and Kd = 46.98 nM in mock cell and hB0AT1 and ACE2-expressing cell[1].

References:
[1]. Takuya Imazu, et al., Structure-guided development of a potent human B0AT1 inhibitor effective in a mouse model of phenylketonuria. bioRxiv. 2025.10.27.684712

Caution: Product has not been fully validated for medical applications. For research use only.
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