

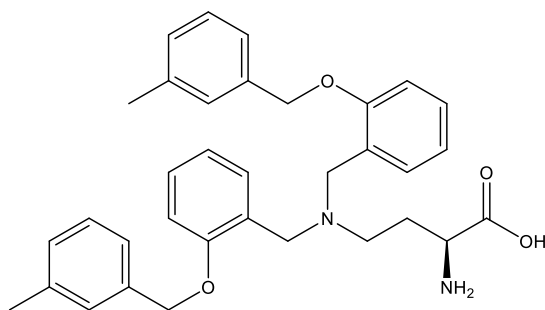
Catalog # 10-4245

V-9302

CAS# 1855871-76-9

(2S)-2-Amino-4-[bis[[2-[(3-methylphenyl)methoxy]phenyl]methyl]amino]butanoic acid

Lot # FBA8068



V-9302 is a selective inhibitor of the alanine-serine-cysteine transporter 2 (ASCT2 or SLC1A5; IC_{50} = 9.0 μ M rat and 9.6 μ M human).^{1,2} It inhibited the uptake of both glutamine and possibly other amino acids in human cancer cells and reduced in vitro viability by at least 20% in more than half of 29 cancer cell lines screened.² V-9302 decreased mTOR activity, elevated autophagy, and increased oxidative stress in multiple animal cancer models.²⁻⁵

- 1) Schulte *et al.* (2016), *2-Amino-4-bis(aryloxybenzyl)aminobutanoic acids: a novel Scaffold for inhibition of ASCT2-mediated glutamine transport*; *Bioorg. Med. Chem. Lett.*, **26** 1044
- 2) Schulte *et al.* (2018), *Pharmacological blockade of ASCT2-dependent glutamine transport leads to antitumor efficacy in preclinical models*; *Nat. Med.*, **24** 194
- 3) Zhang (2020), *ASCT2 (SLC1A5)-dependent glutamine uptake is involved in the progression of head and neck squamous cell carcinoma*; *Br. J. Cancer*, **122** 82
- 4) Jin *et al.* (2020), *A powerful drug combination strategy targeting glutamine addiction for the treatment of human liver cancer*; *Elife*, **9** e56749
- 5) Edwards *et al.* (2021), *Selective glutamine metabolism inhibition in tumor cells improves antitumor T lymphocyte activity in triple-negative breast cancer* *J. Clin. Invest.*, **131** e140100

PHYSICAL DATA

Molecular Weight:	538.69
Molecular Formula:	C ₃₄ H ₃₈ N ₂ O ₄
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (at least 70 mg/ml); ethanol (at least 30 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.