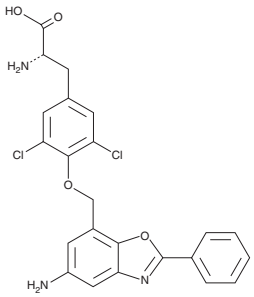
PRODUCT INFORMATION

JPH203

Item No. 29715

CAS Registry No.:	1037592-40-7
Formal Name:	O-[(5-amino-2-phenyl-7-benzoxazolyl) methyl]-3,5-dichloro-L-tyrosine
Synonym:	KYT-0353
MF:	$C_{23}H_{19}Cl_2N_3O_4$
FW:	472.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 277 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

JPH203 is supplied as a crystalline solid. A stock solution may be made by dissolving the JPH203 in the solvent of choice, which should be purged with an inert gas. JPH203 is soluble in organic solvents such as DMSO at approximately 1 mg/ml.

JPH203 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, JPH203 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. JPH203 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

JPH203 is an inhibitor of L-type amino acid transporter 1 (LAT1; IC_{50} = 0.14 µM for ^{14}C-leucine uptake in S2 cells expressing the human transporter).[1] It is selective for LAT1 over LAT2 (IC_{50} = >10 µM). JPH203 inhibits ^{14}C-leucine uptake by, and growth of, HT-29 cells (IC_{50}s = 0.06 and 4.1 µM, respectively). It induces apoptosis and increases levels of cleaved caspase-3, caspase-7, caspase-9, and poly(ADP-ribose) polymerase (PARP) in YD-38 oral cancer cells when used at a concentration of 3 mM.[2] JPH203 (6.3, 12.5, and 25 mg/kg) reduces tumor growth in an HT-29 mouse xenograft model.[1]

References

1. Oda, K., Hosoda, N., Endo, H., *et al.* L-type amino acid transporter 1 inhibitors inhibit tumor cell growth. *Cancer Sci.* **101(1)**, 173-179 (2010).
2. Yun, D.-W., Lee, S.A., Park, M.-G., *et al.* JPH203, an L-type amino acid transporter 1–selective compound, induces apoptosis of YD-38 human oral cancer cells. *J. Pharmacol. Sci.* **124(2)**, 208-217 (2014).

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