

**Product Name:** KYT 0353

**Catalog No.:** 5026

**Batch No.:** 3

CAS Number: 1597402-27-1

IUPAC Name: O-[(5-Amino-2-phenyl-7-benzoxazolyl)methyl]-3,5-dichloro-L-tyrosine dihydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>23</sub>H<sub>19</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>4</sub>·2HCl·2¼H<sub>2</sub>O

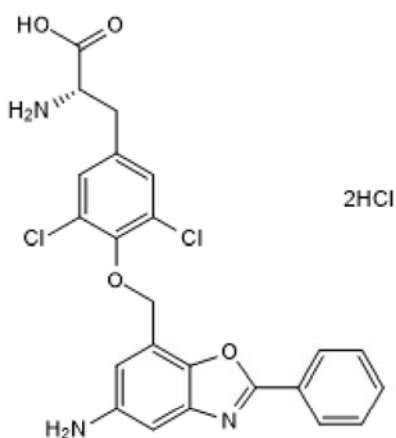
**Batch Molecular Weight:** 585.77

**Physical Appearance:** Pale yellow solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 98.8% purity

**Chiral HPLC:** Shows 100% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	47.16	4.39	7.17
Found	46.8	4.15	6.93

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**Description:**

KYT 0353 is a potent and selective inhibitor of L-type amino acid transporter 1 (LAT1) (IC<sub>50</sub> = 60 nM for <sup>14</sup>C-leucine uptake in H-29 cells). Also suppresses <sup>14</sup>C-leucine uptake in renal proximal tubule cells expressing LAT1 (IC<sub>50</sub> = 140 nM). Displays ~500-fold selectivity for LAT1 over LAT2. Reduces cell viability and induces apoptosis in YD-38 oral cancer cells. Arrests growth in several tumor cell lines. Exhibits growth inhibitory effects on HT-29 cells in vivo.

**Physical and Chemical Properties:**

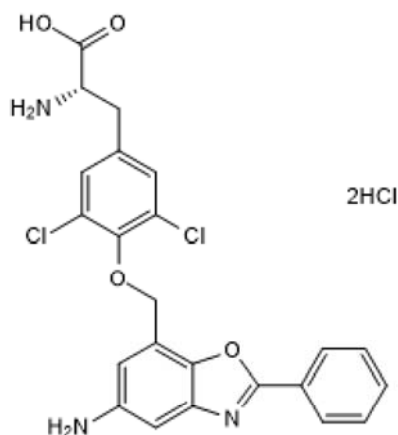
Batch Molecular Formula: C<sub>23</sub>H<sub>19</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>4</sub>·2HCl·2¼H<sub>2</sub>O

Batch Molecular Weight: 585.77

Physical Appearance: Pale yellow solid

**Minimum Purity:** ≥96%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Otsuki et al** (2017) Prostate cancer cells in different androgen receptor status employ different leucine transporters. *Prostate* **77** 222. PMID: 27696482.

**Commerais et al** (2016) Genetic disruption of the multifunctional CD98/LAT1 complex demonstrates the key role of essential amino acid transport in the control of mTORC1 and tumor growth. *Cancer Res.* **2016** 4481. PMID: 27302165.

**Toyoshima et al** (2013) Investigation of the role of transporters on the hepatic elimination of an LAT1 selective inhibitor JPH203. *J.Pharm.Sci.* **102** 3228. PMID: 23712732.

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