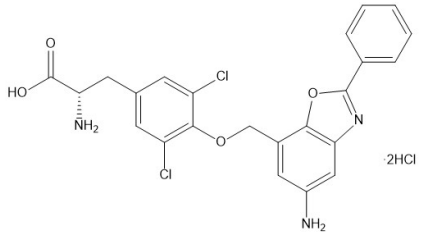
Tribioscience

JPH203, LAT1 inhibitor

Catalog	Unit
TBI4463-5MG	5 mg
TBI4463-25MG	25 mg

Product Details

Formal Name: (2S)-2-Amino-3-[4-[(5-amino-2-phenyl-1,3-benzoxazol-7-yl)methoxy]-3,5-dichlorophenyl]propanoic acid, dihydrochloride
Alternate Names: KYT-0353; Nanvuralant
Molecular Formula: $C_{23}H_{19}Cl_2N_3O_4 \cdot 2HCl$
Formula Weight: 545.24
CAS Number: 1597402-27-1
Purity: >98%
Formulation: powder
Solubility: Soluble in DMSO (up to at least 25 mg/ml)
Storage: -20°C
Stability: ≥ 2 years.



Applications

LAT1 inhibitor

Functions

Selective L-type amino acid transporter 1 inhibitor (LAT1 or SLC7A5; IC50 = 140 nM for ^{14}C-leucine uptake in S2-hLAT1 cells, and 60 nM for HT29 human colon adenocarcinoma cells: growth inhibition IC50's = 16.4 µM and 4.1 µM respectively for S2 and HT29 cells). Also active in HT-29 mouse xenograft models. JPH203 is active in a variety of cancer models and has progressed to clinical trials. It sensitized A549 and MIA Paca-2 cells to radiation by enhancing cellular senescence via mTOR downregulation and sensitized EGFR-expressing cancer cell lines to gefitinib therapy. JPH203 treatment of non-small cell lung cancer cells led to downregulation of PD-L1 suggesting that LAT1 inhibition may help overcome the immune suppressive tumor microenvironment.

Application Procedures

First dissolved in DMSO (up to at least 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 3 months.

For research use only.

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