

Product Data Sheet

Product Name: TC-T 6000

Cat. No.: GC50098

Chemical Properties

Cas. No. 949467-71-4

SMILES CC(C)CN(CC(C)C)C2=NC(NCCO)=NC1=C(N(CC(C)C)CC(C)C)N=C(NCCO)N=C12

Formula C₂₆H₄₈N₈O₂

M.Wt 504.71

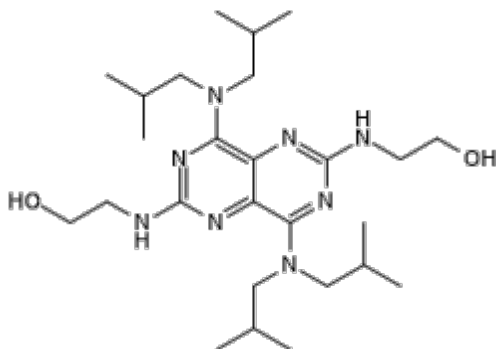
Solubility Soluble in DMSO

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



Protocol

Cell experiment [1]:

Cell lines PK15/hENT cells (PK15 cells stably expressing hENT4)

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Preparation Method Cells were seeded at 5×10^3 cells were seeded in 96-well plates, treated with 10 μ M test TC-T 6000 and incubated at 37 °C in phenol-free MEM for 24h.

Reaction
Conditions 10 μ M; 24h

Applications TC-T 6000 shows no cytotoxicity against PK15/hENT4 cells.

Transporter inhibition assays [1]:

Transport activity of cells transiently transfected with hENT4 was examined with [^{3} H] Adenosine. K15/hENT4 cells were incubated with transport buffer containing TC-T 6000 at pH 6.0 for 15min before addition of 0.2 μ M [^{3} H] Adenosine, and then further incubation for 2min. Uptake was terminated by rapidly aspirating the incubation mixture and washing cells three times with ice-cold PBS. The cells were solubilized overnight in 400 μ l of 5% Triton X-100 and 200 μ l of cell lysate was counted using a scintillation counter. Protein concentration in the cell lysate was determined using the BCA protein assay kit. The concentrations of test compounds that caused 50% inhibition of [^{3} H] Adenosine uptake (IC_{50}) were calculated using a nonlinear fitting method in the Prism 4 program.

Reaction
Conditions 10 μ M; 15min

Applications TC-T 6000 is a potent and selective human ENT4 (Balanced nucleoside transporter 4) inhibitor with an IC_{50} of 74.4nM.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

References:

[1]. Wang C, Lin W, et.al. Dipyridamole analogs as pharmacological inhibitors of equilibrative nucleoside transporters. Identification of novel potent and selective inhibitors of the Adenosine transporter function of human equilibrative nucleoside transporter 4 (hENT4). Biochem Pharmacol. 2013 Dec 1;86(11):1531-40. doi: 10.1016/j.bcp.2013.08.063. Epub 2013 Sep 7. PMID: 24021350; PMCID: PMC3866046.

Background

TC-T 6000, a Dipyridamole analog, is a potent and selective human ENT4 (Balanced nucleoside transporter 4) inhibitor with an IC_{50} of 74.4nM. Making it about 38 times more potent than Dipyridamole [1].

TC-T 6000(10 μ M; 24h) shows no cytotoxicity against PK15/hENT4 cells.

References:

[1]. Wang C, Lin W, et.al. Dipyridamole analogs as pharmacological inhibitors of equilibrative nucleoside transporters. Identification of novel potent and selective inhibitors of the adenosine transporter function of human equilibrative nucleoside transporter 4 (hENT4). Biochem Pharmacol. 2013 Dec 1;86(11):1531-40. doi: 10.1016/j.bcp.2013.08.063. Epub 2013 Sep 7. PMID: 24021350; PMCID: PMC3866046.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA