Product Data Sheet

Product Name: H100
Cat. No.: GC30555

Chemical Properties

Cas. No.	643727-55-3		
SMILES	O=C(O)C1=CC(N2C=CC=C2)=C(OC3=CC=C(OC)C=C3)C(S(=O)(N)=O)=C1		
Formula	$C_{18}H_{16}N_2O_6S$	M.Wt	388.39
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	H100		

Protocol

Cell experiment:

35SO42- efflux is used as a convenient measure of the activity of the Band 3 anion exchanger (AE). Erythrocytes are suspended into MBS containing Na2SO4 rather than NaCl and incubated at 37°C for 30 min. The cell suspension is then centrifuged (3,000 g, 5 min) and the supernatant removed. The above procedure is repeated twice to ensure the intracellular replacement of Cl- with SO42-. To load the erythrocytes with radiolabel, the packed cells are re-suspended to approximately 50% haematocrit in a solution containing 1 part SO42- MBS and 9 parts of a medium containing (in mM) 300 sucrose and 10 MOPS (pH 7.4, 300 ± 5 mOsm) and placed in a microcentrifuge tube. 10 µCi of 35SO42- is then added and the suspension incubated at 37°C for 1 h. At the end of this period, the cells are then washed four times by centrifugation (10,000 g, 10 s) in ice-cold SO42- MBS. All inhibitors (H100) are dissolved in either DMSO or MBS and are added to the cell suspensions prior to the addition of the radioisotope[1].

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References:

[1]. Culliford S1, et al. Specificity of classical and putative Cl(-) transport inhibitors on membrane transport pathways in human erythrocytes. Cell Physiol Biochem. 2003;13(4):181-8.

Background

H100 is a Cl- transport inhibitor, with partial effects against both the NaK2Cl cotransporter and the Band 3 anion exchanger, but no effect against KCl cotransporter, in human erythrocytes.

H100 is a Cl- transport inhibitor, with partial effects against both the NaK2Cl cotransporter (NKCC) and the Band 3 anion exchanger (AE), but no effect against KCl cotransporter (KCC), in human erythrocytes. H100 (0.1 mM) shows 63% and 74% inhibition of NKCC and AE in human erythrocytes[1].

[1]. Culliford S1, et al. Specificity of classical and putative Cl(-) transport inhibitors on membrane transport pathways in human erythrocytes. Cell Physiol Biochem. 2003;13(4):181-8.

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