

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

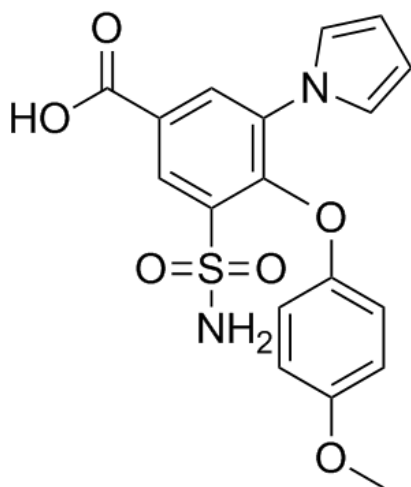
Formula $C_{18}H_{16}N_2O_6S$ M.Wt 388.39

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °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

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

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Cell experiment: $^{35}\text{SO}_4^{2-}$ efflux is used as a convenient measure of the activity of the Band 3 anion exchanger (AE). Erythrocytes are suspended into MBS containing Na_2SO_4 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 SO_4^{2-} . To load the erythrocytes with radiolabel, the packed cells are re-suspended to approximately 50% haematocrit in a solution containing 1 part SO_4^{2-} 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. $10 \mu\text{Ci}$ of $^{35}\text{SO}_4^{2-}$ 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 SO_4^{2-} 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].

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 NaK_2Cl 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 NaK_2Cl 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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