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**Product Data Sheet**

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Product Name: L-873724

Cat. No.: GC31465

**Chemical Properties**

Cas. No. 603139-12-4

SMILES O=S(C1=CC=C(C2=CC=C([C@@H](C(F)(F)F)N[C@@H](CC(C)C)C(NCC#N)=O)C=C2)C=C1)(C)=OFormula C<sub>23</sub>H<sub>26</sub>F<sub>3</sub>N<sub>3</sub>O<sub>3</sub>S M.Wt 481.53

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 **Background**

L-873724 is a potent, orally bioavailable, selective and reversible[2] non-basic cathepsin K inhibitor, with IC<sub>50</sub>s of 0.2, 178, 264, and 5239 nM for cathepsin K, cathepsin S, cathepsin L, cathepsin B, respectively[1]. L-873724 also exhibits an IC<sub>50</sub> of 0.5 nM for rabbit cathepsin K. L-873724 inhibits bone resorption[2].

L-873724 (Compound 22) is a potent and selective non-basic cathepsin K inhibitor, with IC<sub>50</sub>s of 0.2, 178, 264, and 5239 nM for cathepsin K, cathepsin S, cathepsin L, cathepsin B, respectively. L-873724 also shows IC<sub>50</sub>s of 95, 1221 and 4807 nM for Ramos cathepsin S, Hep G2 cathepsin L, Hep G2 cathepsin B[1]. L-873724 exhibits an IC<sub>50</sub> of 0.5 nM for rabbit cathepsin K[2].

L-873724 is orally bioavailable, non-lysosomotropic, and efficacious in the rhesus monkey bone resorption model[1].

[1]. Li CS, et al. Identification of a potent and selective non-basic cathepsin K inhibitor. *Bioorg Med Chem Lett*. 2006 Apr 1;16(7):1985-9. [2]. Zhuo Y, et al. Inhibition of bone

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

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resorption by the cathepsin K inhibitor odanacatib is fully reversible. Bone. 2014 Oct;67:269-80.

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