Debutyldronedarone hydrochloride

Cat. No.: HY-12753A

CAS No.: 197431-02-0

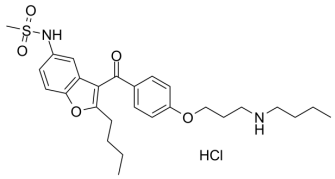
Molecular Formula: $C_{27}H_{37}ClN_2O_5S$

Molecular Weight: 537.11

Target: Thyroid Hormone Receptor

Pathway: Others

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (186.18 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.8618 mL	9.3091 mL	18.6182 mL
5 mM	0.3724 mL	1.8618 mL	3.7236 mL
10 mM	0.1862 mL	0.9309 mL	1.8618 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.65 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.65 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Debutyldronedarone (SR35021) hydrochloride, the main metabolite of Dronedarone, is a selective thyroid hormone receptor α_1 ($TR\alpha_1$) inhibitor. Debutyldronedarone hydrochloride inhibits T3 binding to $TR\alpha_1$ and $TR\beta_1$ by 77% and 25%, respectively. Debutyldronedarone hydrochloride can be used for the research of arrhythmic[1].

IC_{50} & Target

TRα1/TRβ1[1]

REFERENCES

[1]. Van Beeren HC, et al. Dronerarone acts as a selective inhibitor of 3,5,3'-triiodothyronine binding to thyroid hormone receptor-alpha1: in vitro and in vivo evidence. Endocrinology. 2003 Feb;144(2):552-8.

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