

Product Data Sheet

KB130015

Cat. No.: HY-120026 CAS No.: 147030-48-6 Molecular Formula: C₁₈H₁₄I₂O₄ Molecular Weight: 548.11

Target: Thyroid Hormone Receptor

Pathway: Vitamin D Related/Nuclear Receptor

Storage: Powder

3 years 4°C 2 years

In solvent -80°C 6 months

-20°C

-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (182.45 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.8245 mL	9.1223 mL	18.2445 mL
	5 mM	0.3649 mL	1.8245 mL	3.6489 mL
	10 mM	0.1824 mL	0.9122 mL	1.8245 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 (4.56 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.56 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	KB130015 (KB015) is an orally active and potent ThR α and ThR β (Thyroid Hormone Receptor) inhibitor, with IC $_{50}$ values of 4.5 and 5.1 μ M, respectively. KB130015 has antiarrhythmic properties. KB130015 markedly slows the kinetics of inactivation of Na ⁺ channels. KB130015 opens large-conductance Ca ²⁺ -activated K ⁺ channels and relaxes vascular smooth muscle ^{[1][2][3]} .
IC ₅₀ & Target	IC $_{50}$: 4.5 μ M (ThR α), 5.1 μ M (ThR β) $^{[1]}$

REFERENCES

- [1]. Carlsson B, et al. Synthesis and preliminary characterization of a novel antiarrhythmic compound (KB130015) with an improved toxicity profile compared with amiodarone. J Med Chem. 2002 Jan 31;45(3):623-30.
- [2]. Mubagwa K, Macianskiene R, Viappiani S, Gendviliene V, Carlsson B, Brandts B. KB130015, a new amiodarone derivative with multiple effects on cardiac ion channels. Cardiovasc Drug Rev. 2003 Fall;21(3):216-35.
- [3]. Gessner G, et al. The amiodarone derivative 2-methyl-3-(3,5-diiodo-4-carboxymethoxybenzyl) benzofuran (KB130015) opens large-conductance Ca2+-activated K+ channels and relaxes vascular smooth muscle. Eur J Pharmacol. 2007 Jan 26;555(2-3):185-93.

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

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