

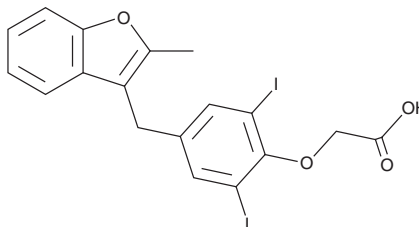
PRODUCT INFORMATION



KB-130015

Item No. 33461

CAS Registry No.: 147030-48-6
Formal Name: 2-[2,6-diiodo-4-[(2-methyl-3-benzofuranyl)methyl]phenoxy]-acetic acid
MF: $C_{18}H_{14}I_2O_4$
FW: 548.1
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

KB-130015 is supplied as a crystalline solid. A stock solution may be made by dissolving the KB-130015 in the solvent of choice, which should be purged with an inert gas. KB-130015 is soluble in organic solvents such as ethanol and DMSO. The solubility of KB-130015 in these solvents is 10 mg/ml.

Description

KB-130015 is an antiarrhythmic agent and a derivative of amiodarone (Item No. 15213).¹ It inhibits potassium currents induced by acetylcholine or adenosine in isolated guinea pig atrial myocytes (IC_{50} s = 0.82 and 0.57 μM , respectively).² KB-130015 activates or inhibits the voltage-gated potassium channel human-ether-a-go-go (hERG), also known as $K_{v11.1}$, in HEK293 cells in a voltage-dependent manner.³ It activates large-conductance calcium-activated potassium ($K_{Ca1.1}/BK_{Ca}$) channels in HEK293 cells expressing the $K_{Ca1.1}$ subunit Slo1 (EC_{50} = 20.2 μM).⁴ KB-130015 (40 mg/kg) prolongs the duration of electrically stimulated action potentials in guinea pig papillary muscle *ex vivo*.¹ It is also an antagonist of human thyroid hormone receptor α (TR α) and TR β (IC_{50} s = 2.2 and 4.1 μM , respectively, in reporter assays).

References

1. Carlsson, B., Singh, B.N., Temciuc, M., *et al.* Synthesis and preliminary characterization of a novel antiarrhythmic compound (KB130015) with an improved toxicity profile compared with amiodarone. *J. Med. Chem.* **45**(3), 623-630 (2002).
2. Brandts, B., Borchard, R., Macianskiene, R., *et al.* Inhibition of G protein-coupled and ATP-sensitive potassium currents by 2-methyl-3-(3,5-diiodo-4-carboxymethoxybenzyl)benzofuran (KB130015), an amiodarone derivative. *J. Pharmacol. Exp. Ther.* **308**(1), 134-142 (2004).
3. Gessner, G., Macianskiene, R., Starkus, J.G., *et al.* The amiodarone derivative KB130015 activates hERG1 potassium channels via a novel mechanism. *Eur. J. Pharmacol.* **632**(1-3), 52-59 (2010).
4. Gessner, G., Heller, R., Hoshi, T., *et al.* The amiodarone derivative 2-methyl-3-(3,5-diiodo-4-carboxymethoxybenzyl)benzofuran (KB130015) opens large-conductance Ca^{2+} -activated K^{+} channels and relaxes vascular smooth muscle. *Eur. J. Pharmacol.* **555**(2-3), 185-193 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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