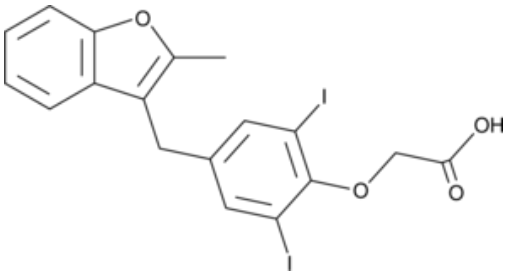
# Product Data Sheet

Product Name: KB-130015
Cat. No.: GC48432

## Chemical Properties

| | | | |
|---|---|---|---|
| Cas. No. | 147030-48-6 | | |
| SMILES | O=C(COC1=C(C=C(CC2=C(C)OC3=C2C=CC=C3)C=C1I)I)O | | |
| Formula | C18H14I2O4 | M.Wt | 548.1 |
| Solubility | DMSO: 10 mg/ml,Ethanol: 10 mg/ml | Storage | -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

KB-130015 is an antiarrhythmic agent and a derivative of amiodarone . [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_V$11.1, in HEK293 cells in a voltage-dependent manner.[3] It activates large-conductance calcium-activated potassium ($BK_{Ca}$) channels in HEK293

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cells expressing the $BK_{Ca}$ 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 (TRα) and TRβ ($IC_{50}$s = 2.2 and 4.1 μM, respectively, in reporter assays).

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 amiodaroneJ. 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 derivativeJ. 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 mechanismEur. 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 Ca2+-activated K+ channels and relaxes vascular smooth muscleEur. J. Pharmacol.555(2-3)185-193(2007)

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