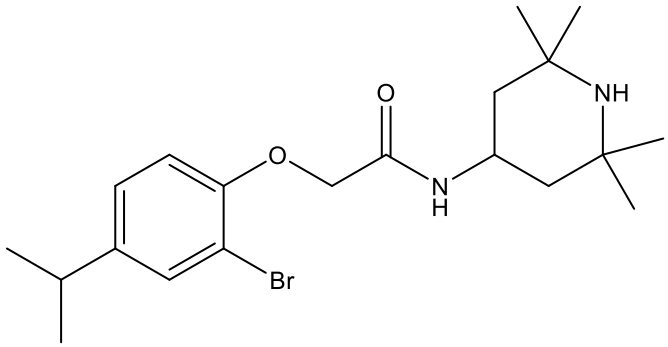
Catalog # 10-4651

VU0134992

CAS# 755002-90-5

2-(2-Bromo-4-propan-2-yl)phenoxy)-N-(2,2,6,6-tetramethlpiperidin-4-yl)acetamide

Lot # FBS3085



VU0134992 is a blocker of the inward rectifier potassium channel $K_{ir}4.1$ (IC_{50} = 970 nM).[1] It also inhibits $K_{ir}3.1/3.2$, $K_{ir}3.1/3.4$, and $K_{ir}4.2$ with similar potency. VU0134992 induced diuresis, natriuresis, and kaliuresis in Sprague-Dawley rats suggesting therapeutic blood pressure lowering potential. It reduced polymyxin-induced nephrotoxicity in cell culture and mouse explant kidney tissue.[2]

1) Kharade (2018), *Discovery, Characterization, and Effects on Renal Fluid and Electrolyte Excretion of the Kir4.1 Potassium Channel Pore Blocker VU0134992*; Mol. Pharmacol. **94** 926
2) Lu *et al*. (2022), *Inwardly rectifying potassium channels mediate polymyxin-induced nephrotoxicity*; Cell. Mol. Life Sci. **79** 296

PHYSICAL DATA

Molecular Weight:	411.38
Molecular Formula:	$C_{20}H_{31}BrN_2O_2$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	Off-white/tan solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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