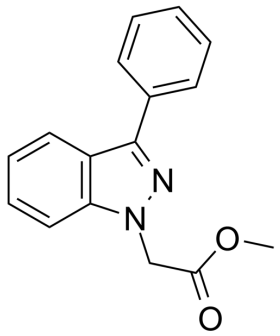
Inz-1

Cat. No.:	HY-116686
CAS No.:	897776-15-7
Molecular Formula:	$C_{16}H_{14}N_2O_2$
Molecular Weight:	266.29
Target:	Cytochrome P450; Fungal
Pathway:	Metabolic Enzyme/Protease; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Inz-1 is a potent and selective mitochondrial cytochrome bc1 inhibitor for yeast (IC_{50}=8.092 μM) over humans (IC_{50}=45.320 μM). Inz-1 reverses Fluconazole (HY-B0101) or other triazole antifungals' resistance in the pathogenic fungus Candida albicans [1].
IC_{50} & Target	IC50: 8.092 μM (yeast mitochondrial cytochrome bc1) IC50: 45.320 μM (human mitochondrial cytochrome bc1)[1]
In Vitro	Inz-1 (0-16 μM; 24 hours) inhibits the growth of the model yeast S. cerevisiae (strain BY4741) and C. albicans (SC5314) in media containing glucose or glycerol as the sole carbon source, while only mildly slowing growth in glucose[1]. Inz-1 (0-100 μM; 24 hours) shows inhibition of yeast cytochrome B enzymatic activity in a concentration -dependent manner in both wild-type and F90Y mutant mitochondria. It exhibits inhibition of cytochrome bc1 from both S. cerevisiae and C. albicans with IC_{50} value of 2.5 μM and 8.0 μM, respectively[1]. Inz-1 (0-100 μM; 24 hours) is selective for yeast over human cytochrome bc1, it inhibits human cytochrome bc1 activity only weakly, with an IC_{50} of 45.3 μM, 5.6-fold higher than the IC_{50} for the C. albicans homolog in mitochondria purified from HEK293 human embryonic kidney cells[1]. Inz-1 (0-100 μM; 24 hours) inhibits proliferation under forced respiration conditions only at 32 μM and only mildly at that concentration[1]. Inz-1 is against candida, human enzyme with IC_{50} values of 8.092 μM and 45.320 μM, respectively. It against Candida and HepG2 respiring growth with IC_{50} values of 1.655 uM and >32 μM, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Benjamin M Vincent, et al. A Fungal-Selective Cytochrome Bc 1 Inhibitor Impairs Virulence and Prevents the Evolution of Drug Resistance.Cell Chem Biol. 2016 Aug 18;23(8):978-991.

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

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