

Data Sheet

Product Name: Ingliforib

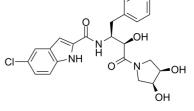
Cat. No.: CS-0015497

CAS No.: 186392-65-4

Molecular Formula: C23H24CIN3O5

Molecular Weight: 457.91
Target: Others
Pathway: Others

Solubility: DMSO: 130 mg/mL (283.90 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Ingliforib is a **glycogen phosphorylase** inhibitor, with **IC**₅₀s of 52, 352 and 150 nM for liver, muscle and brain glycogen phosphorylase, and has cardioprotective activity. IC50 & Target: IC50: 52 nM (liver Glycogen phosphorylase), 352 nM (Muscle Glycogen phosphorylase), 150 nM (Barin Glycogen phosphorylase)^[1] **In Vitro**: Ingliforib is a glycogen phosphorylase inhibitor, and inhibits the myocardial GP isoforms (muscle and brain) with IC₅₀s of 352 and 150 nM, respectively, also a potent inhibitor of the liver isoform (IC₅₀ of 52 nM). Ingliforib (0.1, 1, 10 μ M) dose-dependently reduces infarct size in the isolated rabbit hearts^[1]. **In Vivo**: Ingliforib (15 mg/kg) potently reduces infarct size by 52%, and decreases plasma glucose and lactate concentrations in openchest anesthetized rabbits. Ingliforib (15 mg/kg) also inhibits myocardial glycogen phosphorylase a (GPa) and total glycogen phosphorylase (GP) activity in anesthetized rabbits^[1].

PROTOCOL (Extracted from published papers and Only for reference)

Animal Administration: [1] Rabbits[1]

Male New Zealand White rabbits (3 to 4 kg) are used in the assay. At least 1 h after surgery, when arterial pressure, heart rate (HR), and rate-pressure product (RPP) have stabilized for at least 30 min (baseline), the rabbits receive a bolus of either 15.4 mg/kg of Ingliforib or vehicle (administered in 15 s), followed by a constant infusion of 23.1 mg/kg/h Ingliforib or vehicle at the same dose volume for a total of 3.5 h.

References:

[1]. Tracey WR, et al. Cardioprotective effects of ingliforib, a novel glycogen phosphorylase inhibitor. Am J Physiol Heart Circ Physiol. 2004 Mar;286(3):H1177-84.

CAIndexNames:

1H-Indole-2-carboxamide, 5-chloro-N-[(1S,2R)-3-[(3R,4S)-3,4-dihydroxy-1-pyrrolidinyl]-2-hydroxy-3-oxo-1-(phenylmethyl)propyl]-

SMILES:

O = C(C(N1) = CC2 = C1C = CC(CI) = C2)N[C@@H](CC3 = CC = CC3)[C@@H](O)C(N4C[C@@H](O)[C@@H](O)C4) = O(C(N1) = CC2 = C1C = CC(CI) = C2)N[C@@H](O)C4) = O(C(N1) = CC2 = C1C = CC(CI) = C2)N[C@@H](O)C4) = O(C(N1) = CC2 = C1C = CC1)N[C@@H](O)C4) = O(C(N1) = C1C = C1C = C1C)N[C@@H](O)C4) = O(C(N1) = C1C = C1C)N[C@@H](O)C4) = O(C(N1) = C1C)N[C(M1) = C1C)N[C(M

Page 1 of 2 www.ChemScene.com

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

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Page 2 of 2 www.ChemScene.com