
Product Data Sheet

Product Name: NCX 1000

Cat. No.: GC30334

Chemical Properties

Cas. No. 401519-96-8

SMILES CC1(C2([H])C(C)CCC(OC(C=CC(C=CC(OCCCCO[N+])([O-])=O)=O)=O)=C3)=C3OC)=O)C(CC2)([H])C(C(CC4([H])CC(O)CC5O)([H])C(C45C)([H])CC1

Formula C₃₈H₅₅NO₁₀ M.Wt 685.84

Solubility Soluble in DMSO Storage Store at -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 **Protocol**

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

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Animal experiment:

Rats: On the first protocol, 54 rats, 12 animals/group unless specified, are randomly allocated to receive one of the following treatments: group 1 has phenobarbital induction and no further treatment; group 2 (16 animals) is treated with CCl₄ twice a week for 8 weeks; group 3 has CCl₄ twice a week plus UDCA (15 mg/kg); and group 4 has CCl₄ twice a week plus NCX-1000 (15 mg/kg). NCX-1000 and UDCA are dissolved in carboxymethyl cellulose and administered daily by gavage. Animal weight is monitored daily through the study period, and the dosage of CCl₄ is adjusted accordingly to the animal weight. At the end of the treatment surviving animals are killed by an overdose of urethane, and blood, ascitic fluid, and livers are collected. A portion of each liver is fixed in 10% formalin for histological evaluation. The remaining tissue is partitioned and immediately stored under frozen liquid nitrogen at -80°C until used. On the second protocol, 74 rats are randomly allocated to receive the same treatments as protocol 1. At the end of the study, surviving animals are tested for portal and arterial pressure measurement.

References:

[1]. Fiorucci S, et al. NCX-1000, a NO-releasing derivative of ursodeoxycholic acid, selectively delivers NO to the liver and protects against development of portal hypertension. Proc Natl Acad Sci U S A. 2001

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17;98(15):8897-
902. Epub 2001
Jul 10.
[2]. Fiorucci S,
et al. NCX-1000,
a nitric oxide-
releasing
derivative of
ursodeoxycholic
acid,
ameliorates
portal
hypertension
and lowers
norepinephrine-
induced
intrahepatic
resistance in
the isolated and
perfused rat
liver. J Hepatol.
2003
Dec;39(6):932-
9.

Background

NCX 1000 is a liver-specific NO donor compound derived from ursodeoxycholic acid (UDCA).

NCX-1000 (15 mg/kg, p.o.) prevents ascite formation, reduces collagen deposition in CCl₄-treated rats. NCX-1000 administration almost completely reverts portal hypertension induced by CCl₄, and reduces portal pressure in cirrhotic rats. NCX-1000 reverts HSC contraction induced by FCS, and also inhibits MCP-1 release from HSCs stimulated with TNF- α and IFN- γ [1]. NCX-1000 (28 mg/kg, p.o.) decreases portal

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pressure without affecting mean arterial pressure and heart rate in rats. NCX-1000 also reduces vasoconstriction by 60% caused by 30 μ M NE in rats. Administration of NCX-1000 to BDL and sham operated rats results in a similar increase of nitrite/nitrate and cGMP concentrations in the liver[2].

[1]. Fiorucci S, et al. NCX-1000, a NO-releasing derivative of ursodeoxycholic acid, selectively delivers NO to the liver and protects against development of portal hypertension. Proc Natl Acad Sci U S A. 2001 Jul 17;98(15):8897-902. Epub 2001 Jul 10.

[2]. Fiorucci S, et al. NCX-1000, a nitric oxide-releasing derivative of ursodeoxycholic acid, ameliorates portal hypertension and lowers norepinephrine-induced intrahepatic resistance in the isolated and perfused rat liver. J Hepatol. 2003 Dec;39(6):932-9.

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