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## Product Data Sheet

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Product Name: NCX1022

Cat. No.: GC32003

### Chemical Properties

Cas. No. 571186-50-0

SMILES C[C@@]12[C@](CC[C@]2(O)C(COC(C3=CC=C(CON(=O)=O)C=C3)=O)=O)([H])[C@@]4([H])[C@]([C@@]5(C(CC4)=CC(CC5)=O)C)([H])[C@@H](O)C1

Formula	C <sub>29</sub> H <sub>35</sub> NO <sub>9</sub>	M.Wt	541.59
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Solubility	Soluble in DMSO	Storage	Store at -20°C
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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

NCX1022 is an NO-releasing derivative of Hydrocortisone, which is the most widely used anti-inflammatory drug for the treatment of skin inflammation.

Topical pre- and post-treatment with NCX1022 (3 nmol) in C57BL6 mice not only reduces ear oedema formation in a dose-dependent manner, but also is significantly more effective than the parent compound during the initial stages of inflammation (from 1 to 5 h). NCX1022, but not Hydrocortisone, significantly inhibits granulocyte recruitment (tissue myeloperoxidase activity). Histological samples of mouse ears treated with NCX1022 show significant reduction in both the number of infiltrated cells and disruption of the tissue architecture compared to Hydrocortisone-treated tissues. Post-treatment with Hydrocortisone does not modify the increased granulocyte infiltration induced by benzalkonium application, but NCX1022 reduces by 63% the myeloperoxidase (MPO) activity, producing a maximum effect at the dose of 3 nmol per ear. NCX1022 is significantly more potent than Hydrocortisone in reducing contact dermatitis-induced leukocyte adhesion, particularly at the early time points (e.g., 30-60 min after dermatitis induction)[1].

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

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[1]. Hyun E, et al. Anti-inflammatory effects of nitric oxide-releasing hydrocortisone NCX 1022, in a murine model of contact dermatitis. Br J Pharmacol. 2004 Nov;143(5):618-25.

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