

PRODUCT INFORMATION

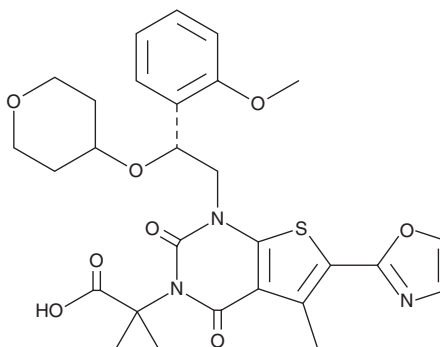


ND-630

Item No. 23961

CAS Registry No.: 1434635-54-7
Formal Name: 1,4-dihydro-1-[(2R)-2-(2-methoxyphenyl)-2-[(tetrahydro-2H-pyran-4-yl)oxy]ethyl]- $\alpha,\alpha,5$ -trimethyl-6-(2-oxazolyl)-2,4-dioxo-thieno[2,3-d]pyrimidine-3(2H)-acetic acid

Synonyms: Firsocostat, GS-0976
MF: $C_{28}H_{31}N_3O_8S$
FW: 569.6
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 205, 244, 312 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ND-630 is supplied as a crystalline solid. A stock solution may be made by dissolving the ND-630 in the solvent of choice, which should be purged with an inert gas. ND-630 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of ND-630 in these solvents is approximately 2, 5, and 10 mg/ml, respectively.

Description

ND-630 is an allosteric inhibitor of acetyl-CoA carboxylase (ACC) dimerization that inhibits ACC1 and ACC2 activity ($IC_{50}s = 2.1$ and 6.1 nM, respectively, for the human enzymes).¹ It is selective for ACC over 101 enzymes, receptors, growth factors, transporters, and ion channels up to a concentration of $10\text{ }\mu\text{M}$. ND-630 prevents dimerization of ACC by interacting within the phosphopeptide-acceptor and dimerization site. It reduces fatty acid synthesis ($EC_{50}s = 66$ and 9 nM in 10% FBS and serum-free media, respectively) and increases fatty acid oxidation in HepG2 cells. ND-630 reduces hepatic steatosis in a rat model of diet-induced obesity and in Zucker diabetic rats. It also improves insulin secretion stimulated by glucose and reduces hemoglobin A1c levels by 0.9% in Zucker diabetic rats.

Reference

1. Harriman, G., Greenwood, J., Bhat, S., *et al.* Acetyl-CoA carboxylase inhibition by ND-630 reduces hepatic steatosis, improves insulin sensitivity, and modulates dyslipidemia in rats. *Proc. Natl. Acad. Sci. U.S.A.* **113**(13), E1796-E1805 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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