

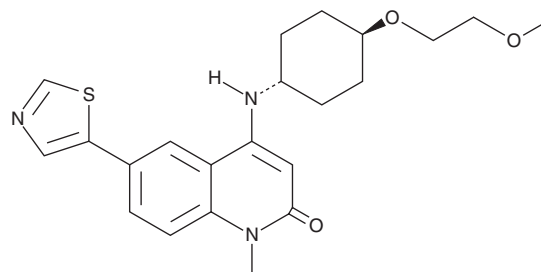
PRODUCT INFORMATION



CD38 Inhibitor 1

Item No. 35532

CAS Registry No.: 1700637-55-3
Formal Name: 4-[[*trans*-4-(2-methoxyethoxy)cyclohexyl]amino]-1-methyl-6-(5-thiazolyl)-2(1H)-quinolinone
Synonyms: CD38-IN-78c, CD38 Inhibitor 78c
MF: C₂₂H₂₇N₃O₃S
FW: 413.5
Purity: ≥98%
UV/Vis.: λ_{max}: 221, 290 nm
Supplied as: A 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

CD38 inhibitor 1 is supplied as a solid. A stock solution may be made by dissolving the CD38 inhibitor 1 in the solvent of choice, which should be purged with an inert gas. CD38 inhibitor 1 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CD38 inhibitor 1 in these solvents is approximately 1 mg/ml.

Description

CD38 inhibitor I is an inhibitor of CD38 (IC₅₀ = 17.7 nM).¹ It is selective for CD38 over poly(ADP-ribose) polymerase 1 (PARP1), sirtuin 1 (SIRT1), and nicotinamide phosphoribosyltransferase (Nampt) when used at a concentration of 100 nM. CD38 inhibitor I (200 nM) increases NAD⁺ levels in mouse embryonic fibroblasts (MEFs). It decreases glucose and insulin levels in an intraperitoneal glucose tolerance test in 2-year-old, but not 1-year-old or 3-month-old, mice when administered at a dose of 10 mg/kg twice per day. CD38 inhibitor I prevents age-dependent decreases in exercise capacity and physical activity and increases in DNA damage in liver and skeletal muscle in mice.

Reference

1. Tarragó, M.G., Chini, C.C.S., Kanamori, K.S., *et al.* A potent and specific CD38 inhibitor ameliorates age-related metabolic dysfunction by reversing tissue NAD⁺ decline. *Cell Metab.* **27**(5), 1081-1095 e10 (2018).

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.

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