

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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## Lieferung & Zahlungsart

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- Gefahrgutzuschlag
- Expressversand

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# PRODUCT INFORMATION



### CD38 Inhibitor 1

Item No. 35532

CAS Registry No.: 1700637-55-3

4-[[trans-4-(2-methoxyethoxy)cyclohexyl]amino]-Formal Name:

1-methyl-6-(5-thiazolyl)-2(1H)-quinolinone

Synonyms: CD38-IN-78c, CD38 Inhibitor 78c

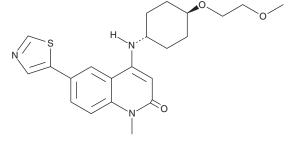
MF:  $C_{22}H_{27}N_3O_3S$ 

413.5 FW: ≥98% **Purity:** 

 $\lambda_{\text{max}}$ : 221, 290 nm UV/Vis.:

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 ( $IC_{50} = 17.7 \text{ nM}$ ).<sup>1</sup> 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.

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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