

PRODUCT INFORMATION

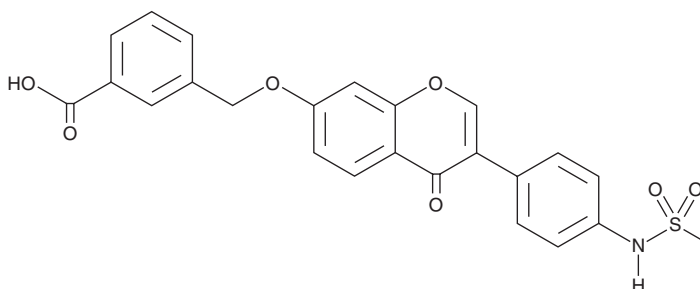


CVT-10216

Item No. 18318

CAS Registry No.: 1005334-57-5
Formal Name: 3-[[[3-[4-[(methylsulfonyl)amino]phenyl]-4-oxo-4H-1-benzopyran-7-yl]oxy]methyl]-benzoic acid

Synonym: GS-455534
MF: C₂₄H₁₉NO₇S
FW: 465.5
Purity: ≥98%
UV/Vis.: λ_{max}: 234, 259 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

CVT-10216 is supplied as a crystalline solid. A stock solution may be made by dissolving the CVT-10216 in the solvent of choice, which should be purged with an inert gas. CVT-10216 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of CVT-10216 in these solvents is approximately 20 and 25 mg/ml, respectively.

CVT-10216 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CVT-10216 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. CVT-10216 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Aldehyde dehydrogenase 2 (ALDH2) is a mitochondrial enzyme involved in the major oxidative pathway of alcohol metabolism. CVT-10216 is a reversible inhibitor of ALDH2 (IC₅₀ = 29 nM) that demonstrates >40-fold selectivity for ALDH2 over the cytosolic isoform, ALDH1.¹ CVT-10216 has been reported to reduce excessive alcohol drinking in alcohol-preferring rats and to prevent self-administration of alcohol in Long-Evans rats.¹ This compound has also been shown to produce anxiolytic effects in four different rodent models, including a model of repeated alcohol withdrawal-induced anxiety.¹ The efficacy of CVT-10216 has also been examined in rodent models of drug addiction or binge eating of high-fat or high-sugar diets.²

References

- Overstreet, D.H., Knappa, D.J., Breese, G.R., *et al.* A selective ALDH-2 inhibitor reduces anxiety in rats. *Pharmacol. Biochem. Behav.* **94**(2), 255-261 (2009).
- Bocarsly, M.E., Hoebel, B.G., Paredes, D., *et al.* GS 455534 selectively suppresses binge eating of palatable food and attenuates dopamine release in the accumbens of sugar-bingeing rats. *Behav. Pharmacol.* **25**(2), 147-157 (2014).

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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