

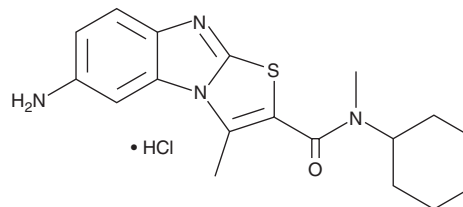
# PRODUCT INFORMATION



## YM-298198 (hydrochloride)

Item No. 22925

**CAS Registry No.:** 1216398-09-2  
**Formal Name:** 6-amino-N-cyclohexyl-N,3-dimethyl-thiazolo[3,2-a]benzimidazole-2-carboxamide, monohydrochloride  
**MF:** C<sub>18</sub>H<sub>22</sub>N<sub>4</sub>OS • HCl  
**FW:** 378.9  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 220, 252 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

YM-298198 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the YM-298198 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. YM-298198 (hydrochloride) is soluble in DMSO at a concentration of approximately 25 mg/ml.

YM-298198 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, YM-298198 (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. YM-298198 (hydrochloride) has a solubility of approximately 0.11 mg/ml in a 1:8 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

YM-298198 is a non-competitive antagonist of the metabotropic glutamate receptor type I (mGluR1; K<sub>i</sub> = 19 nM).<sup>1</sup> It is selective for mGluR1 over mGluR2-7 (IC<sub>50</sub>s = 0.016 and >10 μM, respectively). YM-298198 binds to rat cerebellum membranes (K<sub>i</sub> = 20 nM). *In vivo*, YM-298198 (10 and 30 mg/kg, p.o.) increases nociceptive response latency in a mouse model of hyperalgesia induced by streptozotocin (Item No. 13104) without affecting motor coordination in a rotarod test. YM-298198 also reduces reinstatement of drug-seeking behavior induced by cocaine priming in rats.<sup>2</sup>

### References

1. Kohara, A., Toya, T., Tamura, S., *et al.* Radioligand binding properties and pharmacological characterization of 6-amino-N-cyclohexyl-N,3-dimethylthiazolo[3,2-a]benzimidazole-2-carboxamide (YM-298198), a high-affinity, selective, and noncompetitive antagonist of metabotropic glutamate receptor type 1. *J. Pharmacol. Exp. Ther.* **315**(1), 163-169 (2005).
2. Schmidt, H.D., Kimmey, B.A., Arreola, A.C., *et al.* Group I metabotropic glutamate receptor-mediated activation of PKC gamma in the nucleus accumbens core promotes the reinstatement of cocaine seeking. *Addict. Biol.* **20**(2), 285-296 (2015).

#### 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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM