

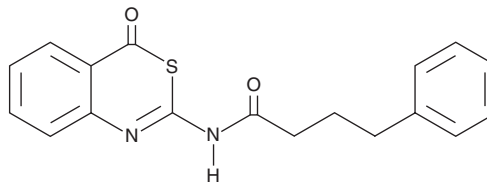
PRODUCT INFORMATION



CAY10680

Item No. 15618

CAS Registry No.: 1439488-21-7
Formal Name: N-(4-oxo-4H-3,1-benzothiazin-2-yl)-benzenebutanamide
MF: C₁₈H₁₆N₂O₂S
FW: 324.4
Purity: ≥95%
UV/Vis.: λ_{max}: 243, 291, 303, 344 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

CAY10680 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10680 in the solvent of choice. CAY10680 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of CAY10680 in these solvents is approximately 15 and 20 mg/ml, respectively.

Description

CAY10680 is a dopamine-sparing, benzothiazinone compound that selectively inhibits both MAO-B activity (IC₅₀ = 34.9 nM in human) and adenosine A_{2A} receptors (K_i = 39.5 nM in human).¹ It demonstrates significantly less potent inhibitory values for other adenosine receptor subtypes (K_is > 1 μM) and MAO-A (IC₅₀ ≥ 10 μM).¹ At 1-20 μM, CAY10680 has been shown to abolish cAMP accumulation in CHO cells transfected with adenosine A_{2A} receptors.¹ In the central nervous system adenosine A_{2A} receptor expression is localized to dopamine-innervated areas where heteromeric complexes are formed with dopamine D₂ receptors. Because inhibition of adenosine A_{2A} receptors has been shown to enhance D₂ receptor function, the blockade of adenosine A_{2A} receptors has emerged as a potential treatment for Parkinson's disease. An additional strategy in the treatment of Parkinson's disease has been to block the activity of monoamine oxidase B (MAO-B), the enzyme involved in dopamine catabolism.

Reference

1. Stössel, A., Schlenk, M., Hinz, S., et al. Dual targeting of adenosine A_{2A} receptors and monoamine oxidase B by 4H-3,1-benzothiazin-4-ones. *J. Med. Chem.* **56(11)**, 4580-4596 (2013).

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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