

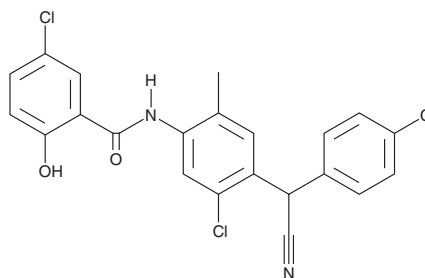
PRODUCT INFORMATION



ZT-1a

Item No. 45727

CAS Registry No.: 212135-62-1
Formal Name: 5-chloro-N-[5-chloro-4-[(4-chlorophenyl)cyanomethyl]-2-methylphenyl]-2-hydroxy-benzamide
MF: C₂₂H₁₅Cl₃N₂O₂
FW: 445.7
Purity: ≥98%
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

ZT-1a is supplied as a solid. A stock solution may be made by dissolving the ZT-1a in the solvent of choice, which should be purged with an inert gas. ZT-1a is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

ZT-1a is an inhibitor of STE20/SPS1-related proline-alanine-rich protein kinase (SPAK; IC₅₀ = 46.7 μM in a cell-free assay).¹ It reduces phosphorylation of Na-K-Cl cotransporter 1 (NKCC1), Na-K cotransporter 2 (KCC2), and KCC3 in HEK293 cells. ZT-1a reduces cerebrospinal fluid (CSF) hypersecretion in a rat model of post-hemorrhagic hydrocephalus and reduces infarct size, ischemic cerebral edema, and neurological deficit scores in a mouse model of ischemic stroke.

Reference

1. Zhang, J., Bhuiyan, M.I.H., Zhang, T., *et al.* Modulation of brain cation-Cl⁻ cotransport via the SPAK kinase inhibitor ZT-1a. *Nat. Commun.* **11**(1), 78 (2020).

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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