

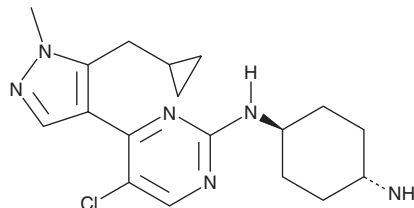
PRODUCT INFORMATION



Casein Kinase Inhibitor A51

Item No. 44831

CAS Registry No.: 2079068-74-7
Formal Name: *trans*-N-[5-chloro-4-[5-(cyclopropylmethyl)-1-methyl-1H-pyrazol-4-yl]-2-pyrimidinyl]-1,4-cyclohexanediamine
Synonym: BTX-A51
MF: C₁₈H₂₅ClN₆
FW: 360.9
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

Casein kinase inhibitor A51 is supplied as a solid. A stock solution may be made by dissolving the casein kinase inhibitor A51 in the solvent of choice, which should be purged with an inert gas. Casein kinase inhibitor A51 is sparingly soluble (1-10 mg/ml) in ethanol and slightly soluble (0.1-1 mg/ml) in DMSO.

Description

Casein kinase inhibitor A51 is an inhibitor of casein kinase 1 α (CK1 α).¹ It binds to CK1 α , CK1 δ , and CK1 ϵ (K_ds = 5.3, 1.8, and 4.4 nM, respectively) and reduces phosphorylation of β -catenin at serine 45, a site phosphorylated specifically by CK1 α , when used at a concentration of 1 μ M. Casein kinase inhibitor A51 (27 nM) inhibits the proliferation of bone marrow cells isolated from mice with acute myeloid leukemia (AML) driven by the oncogenic fusion protein MLL-AF9. It rapidly increases intratumoral levels of p53 and induces intratumoral apoptosis in a murine model of MLL-AF9-driven AML. Casein kinase inhibitor A51 (5 mg/kg per day) also increases survival and eradicates signs of disease in the same model over five months.

Reference

1. Minzel, W., Venkatachalam, A., Fink, A., *et al.* Small molecules co-targeting CK1 α and the transcriptional kinases CDK7/9 control AML in preclinical models. *Cell* **175**(1), 185.e25 (2018).

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.

WARRANTY AND LIMITATION OF REMEDY

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