

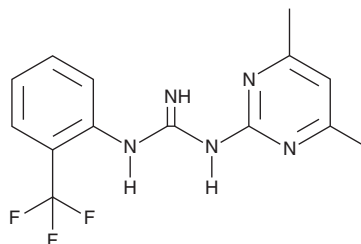
PRODUCT INFORMATION



ZINC69391

Item No. 41860

CAS Registry No.: 303094-67-9
Formal Name: N-(4,6-dimethyl-2-pyrimidinyl)-
N'-[2-(trifluoromethyl)phenyl]-
guanidine
MF: $C_{14}H_{14}F_3N_5$
FW: 309.3
Purity: $\geq 98\%$
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

ZINC69391 is supplied as a solid. A stock solution may be made by dissolving the ZINC69391 in the solvent of choice, which should be purged with an inert gas. ZINC69391 is sparingly soluble (1-10 mg/ml) in ethanol and soluble (≥ 10 mg/ml) in DMSO.

Description

ZINC69391 is an inhibitor of the protein-protein interaction between Rac1 and the Rho guanine nucleotide exchange factor TIAM1.¹ It inhibits the interaction between Rac1 and TIAM1 in a cell-free assay when used at a concentration of 200 μM . ZINC69391 is also active against chloroquine-resistant and -susceptible strains of *P. falciparum* ($\text{IC}_{50\text{s}}$ = 17.56 and 12.56, respectively).² It inhibits the proliferation of MDA-MB-231, F3II, and MCF-7 breast cancer cells ($\text{IC}_{50\text{s}}$ = 48, 61, and 31 μM , respectively).¹ ZINC69391 (10 μM) induces cell cycle arrest at the G_1 phase in MDA-MB-231 cells. It inhibits EGF-induced actin polymerization in, and the migration and invasion of, MDA-MB-231 and F3II cells when used at a concentration of 50 μM . *In vivo*, ZINC69391 (25 mg/kg per day) reduces the number of lung nodules in an F3II murine model of lung metastasis when administered at a dose of 25 mg/kg per day.

References

- Cardama, G.A., Comin, M.J., Hornos, L., *et al.* Preclinical development of novel Rac1-GEF signaling inhibitors using a rational design approach in highly aggressive breast cancer cell lines. *Anticancer Agents Med. Chem.* **14**(6), 840-851 (2014).
- Parapini, S., Paone, S., Erba, E., *et al.* *In vitro* antimalarial activity of inhibitors of the human GTPase Rac1. *Antimicrob. Agents Chemother.* **66**(1), e0149821 (2022).

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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