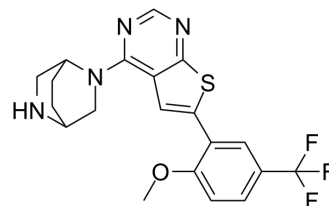


KRAS G12D inhibitor 14

Cat. No.:	HY-144661
CAS No.:	2765254-39-3
Molecular Formula:	C ₂₀ H ₁₉ F ₃ N ₄ OS
Molecular Weight:	420.45
Target:	Ras; Apoptosis
Pathway:	GPCR/G Protein; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	KRAS G12D inhibitor 14 is a potent KRAS G12D inhibitor with a K _D of 33 nM for binding to KRAS G12D protein. KRAS G12D inhibitor 14 decreases the active form of KRAS G12D (KRAS G12D-GTP) but not KRAS G13D ^[1] .
IC₅₀ & Target	KRas G12D 33 nM (Kd)
In Vitro	KRAS G12D inhibitor 14 (compound KD-8) shows antiproliferative activity with an IC ₅₀ of 2.1 μM against three KRAS G12D-mutated cells (Panc1, SW1990 and CT26). KRAS G12D inhibitor 14 decreases the active form of KRAS (KRAS-GTP) in KRAS G12D mutated cancer cell lines (CT26 and SW1990) but not in KRAS G13D mutated cancer cell lines (HCT116). KD-8 also causes efficient apoptosis of SW1990 and CT26 cancer cells. KRAS G12D inhibitor 14 down-regulates the phosphorylated Raf and Erk in CT26 and SW1990 cancer cell lines but not in HeLa cells (KRAS WT) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	KRAS G12D inhibitor 14 (compound KD-8) (40 mg/kg or 60 mg/kg; i.p.) exhibits significant antitumor efficacy in a CT26 tumor model with a tumor growth inhibition (TGI) of 42% or 53% without causing apparent toxicity ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Li L, et al. Discovery of Thieno[2,3-d]pyrimidine-based KRAS G12D inhibitors as potential anticancer agents via combinatorial virtual screening. Eur J Med Chem. 2022;233:114243.

Caution: Product has not been fully validated for medical applications. For research use only.

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