

PRODUCT INFORMATION

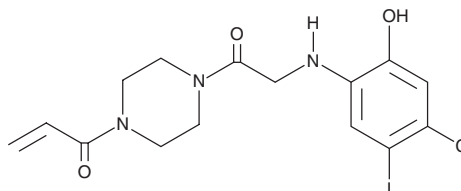


K-Ras(G12C) Inhibitor 12

Item No. 20118

CAS Registry No.: 1469337-95-8
Formal Name: 1-[4-[2-[(4-chloro-2-hydroxy-5-iodophenyl)amino]acetyl]-1-piperazinyl]-2-propen-1-one
Synonyms: K-Ras4A(G12C) Inhibitor 12, c-K-ras(G12C) Inhibitor 12, Ki-Ras(G12C) Inhibitor 12, c-Ki-ras(G12C) Inhibitor 12, KRAS(G12C) Inhibitor 12, Kristen Rat Sarcoma Virus(G12C) Inhibitor 12

MF: $C_{15}H_{17}ClIN_3O_3$
FW: 449.7
Purity: ≥95%
UV/Vis.: λ_{max} : 220, 254, 307 nm
Supplied as: A crystalline 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

K-Ras(G12C) inhibitor 12 is supplied as a crystalline solid. A stock solution may be made by dissolving the K-Ras(G12C) inhibitor 12 in the solvent of choice, which should be purged with an inert gas. K-Ras(G12C) inhibitor 12 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of K-Ras(G12C) inhibitor 12 in ethanol is approximately 0.33 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Description

K-Ras(G12C) inhibitor 12 irreversibly binds to the oncogenic mutant K-Ras(G12C), blocking K-Ras(G12C) interactions.¹ K-Ras is a small GTPase that cycles between a GTP-bound active state and a GDP-bound inactive state to turn on downstream Raf kinases to drive cell growth. A G12C mutation in K-Ras blocks GTP hydrolysis, activates K-Ras, and promotes carcinogenesis. This compound has been used to decrease viability and increase apoptosis in several lung cancer cell lines containing G12C mutations ($EC_{50} = 0.32 \mu M$ in H1792 cells).¹

Reference

1. Ostrem, J.M., Peters, U., Sos, M.L., *et al.* K-Ras(G12C) inhibitors allosterically control GTP affinity and effector interactions. *Nature* **503(7477)**, 548-551 (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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