GK13S

Cat. No.: HY-153627

Molecular Formula: $C_{21}H_{22}N_6O_2$

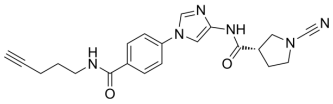
Molecular Weight: 390.44

Target: Deubiquitinase

Pathway: Cell Cycle/DNA Damage

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



BIOLOGICAL ACTIVITY

Description

G13KS is a deubiquitinase UCHL1 ligand and inhibitor. G13KS inhibits recombinant and cellular UCHL1. G13KS reduces levels of monoubiquitin in human glioblastoma cells[1]. GK13S is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.

IC_{50} & Target

UCHL1
50 nM (IC_{50})

In Vitro

GK13S (0-1 μM, 1 h) inhibits recombinant UCHL1 with an IC_{50} of 50 nM[1].
GK13S (1-10 μM, 24 h) inhibits cellular UCHL1 in HEK293 cells[1].
GK13S (5 μM, 72 h) does not impair HEK293 cell growth[1].
GK13S (5 μM, 48 h) reduces ubiquitin levels in U-87 MG cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	HEK293 cell
Concentration:	1, 5, 10 μM
Incubation Time:	24 h
Result:	Nearly completely inhibits UCHL1 at 1 μM.

REFERENCES

[1]. Grethe C, et al. Structural basis for specific inhibition of the deubiquitinase UCHL1. Nat Commun. 2022 Oct 10;13(1):5950.

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