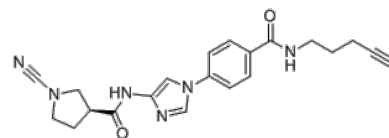


**Product Name** : GK13S  
**Cat. No.** : PC-49371  
**CAS No.** :  
**Molecular Formula** : C<sub>21</sub>H<sub>22</sub>N<sub>6</sub>O<sub>2</sub>  
**Molecular Weight** : 390.447  
**Target** : Deubiquitinase (DUB)  
**Solubility** : 10 mM in DMSO



### Biological Activity

GK13S is a highly potent, specific and covalent inhibitor of deubiquitinase **UCHL1** with IC<sub>50</sub> of 87 nM, displays exquisite specificity for UCHL1 over the other UCH family members (IC<sub>50</sub>>10 μM).

GK13S inhibits recombinant UCHL1 (0.8 μM) with IC<sub>50</sub> of 50 nM in a Ubiquitin rhodamine cleavage assay.

Inhibition of UCHL1 by GK13S does not impair cell growth in HEK293 cells.

GK13S reduces monoubiquitin in U-87 MG cells and thereby phenocopies the effect of a UCHL1 mutant mouse.

GK13S binds covalently to the catalytic cysteine Cys90 through an isothioureia with its cyanamide warhead and occupies a shallow cleft that, during catalysis, guides the Ubiquitin C-terminal LRGG peptide to the active site.

### References

Grethe C, et al. *Nat Commun.* 2022 Oct 10;13(1):5950.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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