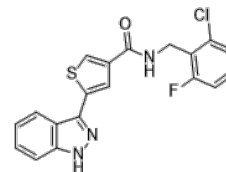


Product Name : XMU-MP-9
Cat. No. : PC-26395
CAS No. : 2251130-41-1
Molecular Formula : C₁₉H₁₃ClFN₃OS
Molecular Weight : 385.84
Target : Ras
Solubility : 10 mM in DMSO



Biological Activity

XMU-MP-9 is bifunctional, specific small molecule K-RAS mutants degrader, facilitates NEDD4-1-mediated ubiquitination and degradation of various oncogenic K-RAS mutants.

XMU-MP-9 could induce decrease of endogenous K-RASG12V protein levels in SW620 cells as early as 12 h treatment and reached a maximum effect at 36 to 48 h.

XMU-MP-9 exhibits potent effect on inhibiting growth of NEDD4-1^{+/+} SW620 cells in 2-D culture and 3-D soft agar in comparison to NEDD4-1^{-/-} SW620 cells, also induces NEDD4-1-dependent decrease of endogenous K-RASG12V protein levels.

XMU-MP-9 primarily assists NEDD4-1 in attaching ubiquitin to K128 of K-RASG12V.

XMU-MP-9 interacted with both K-RASG12V and NEDD4-1 with similar binding affinities (K_d = 18.4 and 25.4 nM).

XMU-MP-9 promotes ubiquitination and degradation of various K-RAS mutants such as G12D, G12C, G12S, G13V, G13D, and Q61H via lysosomal pathway, but not H-RAS or N-RAS mutants.

XMU-MP-9 inhibits proliferation and anchorage-independent growth of K-RAS mutant harboring cancer cells.

XMU-MP-9 (40 mg/kg once or twice daily via tail vein injection) suppresses tumor development of K-RAS mutant harboring cancer cells in vivo.

References

Taoling Zeng, et al. Acta Pharm Sin B. 2026 Feb;16(2):979-993.

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

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