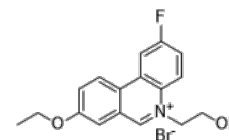


Product Name : SMIP-031
Cat. No. : PC-22546
CAS No. : 3084512-41-1
Molecular Formula : C₁₇H₁₇BrFNO₂
Molecular Weight : 366.23
Target : Protein Phosphatase/PTP
Solubility : 10 mM in DMSO



Biological Activity

SMIP-031 is a potent small molecule inhibitor of metal-dependent phosphatase **PPM1A** with IC₅₀ of 180 nM, efficiently activates autophagy and reduces the mycobacterium tuberculosis (Mtb) infection.

SMIP-031 efficiently increased the level of phosphorylation of S403-p62 and the expression of LC3B-II to activate autophagy, resulting in the dose-dependent clearance of Mtb in infected macrophages.

SMIP-031 possesses a good pharmacokinetic profile and oral bioavailability (F = 74%).

SMIP-031 is well tolerated up to 50 mg/kg and significantly reduces the bacteria burden in the spleens of infected mice.

References

Zhipeng Yu, et al. *J Med Chem*. 2024 Jul 3. doi: 10.1021/acs.jmedchem.4c00513.

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

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