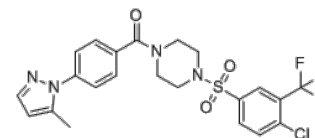


Product Name : Smurf1 inhibitor A01
Cat. No. : PC-21766
CAS No. : 1007647-73-5
Molecular Formula : C₂₂H₂₀ClF₃N₄O₃S
Molecular Weight : 512.93
Target : E3 Ubiquitin Ligase
Solubility : 10 mM in DMSO



Biological Activity

Smurf1 inhibitor A01 is a specific small molecule inhibitor of ubiquitin ligase Smad ubiquitination regulatory factor-1 (Smurf1) with K_d of 3.66 nM for interrupting Smurf1-Smad1 interaction, impairs Smurf1-mediated Smad1/5 degradation and stabilizes Smad1/5 protein level.

Smurf1 inhibitor A01 does not affect the protein level of Smad2/3, Smad4, ING2 and the small guanosine triphosphatase RhoA.

Smurf1 inhibitor A01 does not interrupt Smurf2-Smad2 or Smurf2-Smad3 interactions.

Smurf1 inhibitor A01 (2 μM) enhances BMP signaling responsiveness in C2C12 and mouse pre-osteoblasts MC3T3-E1 cells, induces gene expression of ALP, osteocalcin and type I collagen (α1).

Smurf1 inhibitor A01 (10 μM) potentiates BMP-2 induced osteoblastic activity in both C2C12 and MC3T3-E1 cells, potentiates BMP-2 induced ALP enrichment.

References

Yu Cao, et al. Sci Rep. 2014 May 14:4:4965.

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

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