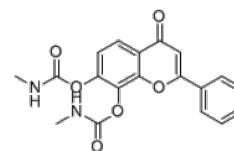


Product Name : TrkB agonist R13
Cat. No. : PC-20760
CAS No. : 1609067-49-3
Molecular Formula : C₁₉H₁₆N₂O₆
Molecular Weight : 368.35
Target : Trk Receptor
Solubility : 10 mM in DMSO



CAS: 1609067-49-3

Biological Activity

TrkB agonist R13 is a small molecular **TrkB** receptor agonist prodrug, inhibits asparagine endopeptidase (AEP) and promotes bone formation.

R13 releases 7,8-DHF after absorption and significantly increases its oral bioavailability.

Oral administration of R13 elicits robust TrkB receptor activation in the brain and the gut and inhibits AEP via Akt-mediated T322 phosphorylation.

R13 not only represses AEP expression through blunting its upstream transcription factor C/EBPβ but also blocks AEP activation via BDNF/TrkB pathway-activated Akt.

R13 treatment significantly elevates OPG in both mice without altering RANKL, blocking trabecular bone loss in vivo.

References

Jing Xiong, et al. *Nat Commun.* 2022 Aug 16;13(1):4820.

Chun Chen, et al. *Proc Natl Acad Sci U S A.* 2018 Jan 16;115(3):578-583.

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

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