

Product Datasheet

XMD17-109

Catalog No. **BP-02510** · CAS **1435488-37-1** · Form **free base** · Physical state **solid** · Color **Light yellow to yellow** · Version **1.0**
· Revision **2026-09-10**

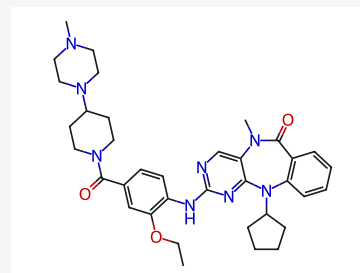
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Target ERK	Research area Cancer
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Molecular formula **C₃₆H₄₆N₈O₃**

Molecular weight **638.8022**

STRUCTURE



DESCRIPTION

XMD17-109 is a novel, specific ERK-5 inhibitor, with an IC₅₀ of 162 nM.

BIOLOGICAL ACTIVITY

ERK5-IN-1 is a novel, specific inhibitor of ERK-5 with an EC₅₀ value of 4.2 μM in HEK293 cells. The pAP1-luciferase reporter and pRL-CMV-Renilla plasmids were co-transfected with plasmids encoding for ERK5 and constitutively active MEK5 (MEK5DD) in HEK293 cells. Cells were treated with the indicated amounts of compound 26 (XMD17-109) for 24 h, and lysates were subjected to the dual-luciferase assay. Compound 26 completely inhibited the ERK5-mediated AP1 transcriptional activity at 30 μM and had an EC₅₀ of 4.2 ± 0.7 μM.

SOLUBILITY

Soluble in DMSO

REFERENCES

- [1].Deng X, et al. Structural determinants for ERK5 (MAPK7) and leucine rich repeat kinase 2 activities of benzo[e]pyrimido-[5,4-b]diazepine-6(11H)-ones. Eur J Med Chem. 2013;70:758-67.
- [2].Elkins, Jonathan M., et al. X-ray Crystal Structure of ERK5 (MAPK7) in Complex with a Specific Inhibitor. Journal of Medicinal Chemistry (2013), 56(11), 4413-4421.
- [3].Wilhelmsen K, et al. Extracellular signal-regulated kinase 5 promotes acute cellular and systemic inflammation. Sci Signal. 2015 Aug 25;8(391):ra86.

Tel: +86 20 31130026 · Fax: +86 20 36822386 · tech@biochemprobe.com · www.biochemprobe.com

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