Product Datasheet

TLX agonist 10

Catalog No. **BP-07372** · CAS **3032232-47-3** · Form **free base** · Physical state **solid** · Version **1.0** · Revision **2026-11-13**

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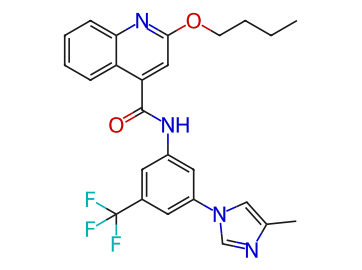
Target	Research area
Orphan Nuclear Receptor	**Neurological Disease**

Molecular formula	$C_{25}H_{23}F_3N_4O_2$
Molecular weight	**468.4709**

STRUCTURE



DESCRIPTION

TLX agonist 10 is potent, selective agonist of the orphan nuclear receptor tailless homologue (TLX, NR2E1) with pEC50 of 6.6.

BIOLOGICAL ACTIVITY

Targets & IC50: TLX:0.25 μM (EC50)
TLX agonist 3 (compound 10) enhances TLX oligomerization in a concentration-dependent manner during homogeneous time-resolved fluorescence resonance energy transfer (HTRF) assays at concentrations of 2.5-20 μM over 22 hours. In HEK293 cells, it activates full-length human TLX with an EC50 of 0.7 μM. TLX agonist 3 (3 μM; 8 hours) induces expression of SIRT1 in T98G human astrocyte cells without changing TLX levels. It demonstrates good stability in rat liver microsomes at a concentration of 10 μM with a half-life of 142 minutes over 0-60 minutes and shows no significant cytotoxic effects in HEK293 cells at concentrations up to 10 μM over 24 hours. Real Time qPCRCell Line: T98G human astrocyte cells, Concentration: 3 μM, Incubation Time: 8 h, Result: Induced expression of the TLX-regulated gene SIRT1 but did not alter TLX levels.

REFERENCES

[1]. Faudone, Giuseppe; Journal of Medicinal Chemistry (2022), 65(3), 2288-2296, CAplus and MEDLINE