TL4-12

Cat. No.: HY-123714 CAS No.: 1620820-12-3 Molecular Formula: $C_{25}H_{27}F_3N_6O_2$ Molecular Weight: 500.52

Target: MAP4K; Apoptosis

Pathway: MAPK/ERK Pathway; Apoptosis

-20°C, sealed storage, away from moisture Storage:

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

DMSO: 8.33 mg/mL (16.64 mM; ultrasonic and warming and heat to 60°C)

| Preparing Stock Solutions | Solvent Mass Concentration | 1 mg | 5 mg | 10 mg |
|------------------------------|-------------------------------|-----------|-----------|------------|
| | 1 mM | 1.9979 mL | 9.9896 mL | 19.9792 mL |
| | 5 mM | 0.3996 mL | 1.9979 mL | 3.9958 mL |
| | 10 mM | 0.1998 mL | 0.9990 mL | 1.9979 mL |

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

TL4-12 is a selective MAP4K2/GCK inhibitor, dose-dependently downregulates IKZF1 and BCL-6 and leads to MM cell proliferation inhibition (IC₅₀=37 nM) accompanied by induction of apoptosis. TL4-12 can be used to overcome immunomodulatory agent resistance in multiple myeloma (MM)^[1].

In Vitro

TL4 12 (0-5 μ M; 4 days) shows antiproliferation activity with an IC₅₀ value of 37 nM for MM cells, and with IC₅₀s of 1.62, 3.7, 4.4, 5.7, 10, 32, 49, 19 µM for JJN3, MM1.S, H929, RPMI-8226, MOLP-8, SKMM2, LP-1, U266 cells, respectively^[1].

.TL4-12 (0, 1, 3 μM; 24 h) dose-dependently decreases IKZF1, c-MYC, and BCL-6 protein expression and increases p53 level in K-RASG12A MM.1S cells^[1].

TL4-12 dose-dependently increases Annexin-V positive cell from 6% (dimethyl sulfoxide) to 13% (1 µM) and 22% (3 µM), respectively^[1].

TL4-12 induces apoptosis and cell-cycle arrest in the G0/G1 phase in MM.1S, RPMI-8226, RPMI-8226 cells^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

| 1]. Shirong Li, et al. Targeting t | he GCK pathway: a novel and | selective therapeutic strategy | against RAS-mutated multiple myeloma. Bl | ood. 2021 Apr 1;137(13):1754-1764. |
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| | Caution: Product has no | ot been fully validated for n | nedical applications. For research use o | nly. |
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