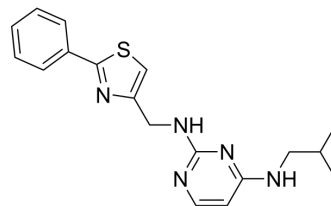


KHS101

| | |
|--------------------|---|
| Cat. No.: | HY-10996 |
| CAS No.: | 1262770-73-9 |
| Molecular Formula: | C ₁₈ H ₂₁ N ₅ S |
| Molecular Weight: | 339.46 |
| Target: | Others |
| Pathway: | Others |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. |



BIOLOGICAL ACTIVITY

| | | | | | | | | | | | | | | | | | |
|--------------------|--|------------|----------|----------------|-------------------|------------------|------|---------|---|------------|----------|----------------|------|------------------|-----------------|---------|--|
| Description | KHS101 is a small molecule that accelerates neuronal differentiation. KHS101 can distribute to the brain and resulted in a significant increase in neuronal differentiation ^[1] . | | | | | | | | | | | | | | | | |
| In Vitro | <p>KHS101 induces neuronal differentiation of adherently cultured rat NPCs in a dose-dependent fashion (EC₅₀ - 1 μM)^[1]. KHS101 (5 μM) suppresses astrocyte formation in cultured NPCs^[1]. KHS101 (5 μM; 24-72 h) negatively affects cell cycle progression and proliferation of NPCs^[1]. KHS101 specifically interacts with TACC3 protein^[1]. KHS101 (0-15 μM; 24 h) regulates the nuclear localization of the transcription factor ARNT2^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. RT-PCR^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Rat NPCs</td> </tr> <tr> <td>Concentration:</td> <td>0.6, 1.7 and 5 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Showed a dose-dependent induction of Cdkn1 mRNA expression.</td> </tr> </table> <p>Cell Proliferation Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Rat NPCs</td> </tr> <tr> <td>Concentration:</td> <td>5 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24, 48 and 72 h</td> </tr> <tr> <td>Result:</td> <td>The vast majority of NPCs stop proliferating within 72 h, become mitotically inactive.</td> </tr> </table> | Cell Line: | Rat NPCs | Concentration: | 0.6, 1.7 and 5 μM | Incubation Time: | 24 h | Result: | Showed a dose-dependent induction of Cdkn1 mRNA expression. | Cell Line: | Rat NPCs | Concentration: | 5 μM | Incubation Time: | 24, 48 and 72 h | Result: | The vast majority of NPCs stop proliferating within 72 h, become mitotically inactive. |
| Cell Line: | Rat NPCs | | | | | | | | | | | | | | | | |
| Concentration: | 0.6, 1.7 and 5 μM | | | | | | | | | | | | | | | | |
| Incubation Time: | 24 h | | | | | | | | | | | | | | | | |
| Result: | Showed a dose-dependent induction of Cdkn1 mRNA expression. | | | | | | | | | | | | | | | | |
| Cell Line: | Rat NPCs | | | | | | | | | | | | | | | | |
| Concentration: | 5 μM | | | | | | | | | | | | | | | | |
| Incubation Time: | 24, 48 and 72 h | | | | | | | | | | | | | | | | |
| Result: | The vast majority of NPCs stop proliferating within 72 h, become mitotically inactive. | | | | | | | | | | | | | | | | |
| In Vivo | <p>KHS101 (6 mg/kg; s.c.; BID for 14 days) distributes to the brain and significantly increases neuronal differentiation in rats in vivo^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> | | | | | | | | | | | | | | | | |

| | |
|-----------------|--|
| Animal Model: | Adult Fisher 344 rats (Ø10 wk old) ^[1] |
| Dosage: | 6 mg/kg |
| Administration: | SC, BID for 14 days |
| Result: | Increased neuronal differentiation. Reduced proliferation of NPCs. |

REFERENCES

[1]. Wurdak H, et al. A small molecule accelerates neuronal differentiation in the adult rat. Proc Natl Acad Sci U S A. 2010 Sep 21;107(38):16542-7.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA