



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC Handels GmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

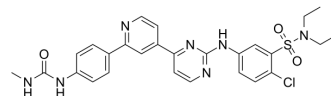
[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

## hSMG-1 inhibitor 11j

|                    |                                                                                                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Cat. No.:          | HY-124719                                                                                                                                          |
| CAS No.:           | 1402452-15-6                                                                                                                                       |
| Molecular Formula: | C <sub>27</sub> H <sub>28</sub> ClN <sub>7</sub> O <sub>3</sub> S                                                                                  |
| Molecular Weight:  | 566                                                                                                                                                |
| Target:            | PI3K; mTOR; GSK-3; CDK                                                                                                                             |
| Pathway:           | PI3K/Akt/mTOR; Stem Cell/Wnt; Cell Cycle/DNA Damage                                                                                                |
| Storage:           | 4°C, sealed storage, away from moisture and light<br>* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light) |



### SOLVENT & SOLUBILITY

|                                                                               |                                                                                                                                         |                                                                      |           |           |            |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------|-----------|------------|
| In Vitro                                                                      | DMSO : 80 mg/mL (141.34 mM; Need ultrasonic)                                                                                            |                                                                      |           |           |            |
|                                                                               | Preparing Stock Solutions                                                                                                               | <div><div>Solvent</div><div>Concentration</div><div>Mass</div></div> | 1 mg      | 5 mg      | 10 mg      |
|                                                                               |                                                                                                                                         |                                                                      | 1.7668 mL | 8.8339 mL | 17.6678 mL |
|                                                                               |                                                                                                                                         |                                                                      | 0.3534 mL | 1.7668 mL | 3.5336 mL  |
|                                                                               |                                                                                                                                         |                                                                      | 0.1767 mL | 0.8834 mL | 1.7668 mL  |
| Please refer to the solubility information to select the appropriate solvent. |                                                                                                                                         |                                                                      |           |           |            |
| In Vivo                                                                       | 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline<br>Solubility: ≥ 6 mg/mL (10.60 mM); Clear solution |                                                                      |           |           |            |

### BIOLOGICAL ACTIVITY

|                           |                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                    |                                    |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------|------------------------------------|
| Description               | hSMG-1 inhibitor 11j, a pyrimidine derivative, is a potent and selective inhibitor of hSMG-1, with an IC <sub>50</sub> of 0.11 nM. hSMG-1 inhibitor 11j exhibits >455-fold selectivity for hSMG-1 over mTOR (IC <sub>50</sub> =50 nM), PI3Kα/γ (IC <sub>50</sub> =92/60 nM) and CDK1/CDK2 (IC <sub>50</sub> =32/7.1 μM). hSMG-1 inhibitor 11j can be used for the research of cancer <sup>[1]</sup> . |                                   |                                    |                                    |
| IC <sub>50</sub> & Target | hSMG-1<br>0.11 nM (IC <sub>50</sub> )                                                                                                                                                                                                                                                                                                                                                                 | mTOR<br>50 nM (IC <sub>50</sub> ) | PI3Kγ<br>60 nM (IC <sub>50</sub> ) | PI3Kα<br>92 nM (IC <sub>50</sub> ) |
|                           | GSKα<br>260 (IC <sub>50</sub> )                                                                                                                                                                                                                                                                                                                                                                       | GSKβ<br>330 (IC <sub>50</sub> )   | CDK2<br>7.1 μM (IC <sub>50</sub> ) | CDK1<br>32 μM (IC <sub>50</sub> )  |
| In Vitro                  | hSMG-1 inhibitor 11j (0.3-3 μM; 6 h) significantly reduces UPF1 phosphorylation at 0.3 μM, and eliminates it at 1 μM in MDA 361 cells <sup>[1]</sup> .<br>hSMG-1 inhibitor 11j inhibits MDA468 cell proliferation, with an IC <sub>50</sub> of 75 nM <sup>[1]</sup> .                                                                                                                                 |                                   |                                    |                                    |

---

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

---

## CUSTOMER VALIDATION

---

- Nat Commun. 2023 Aug 8;14(1):4760.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

---

[1]. Gopalsamy A, et, al. Identification of pyrimidine derivatives as hSMG-1 inhibitors. Bioorg Med Chem Lett. 2012 Nov 1;22(21):6636-41.

---

**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](mailto:tech@MedChemExpress.com)

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