



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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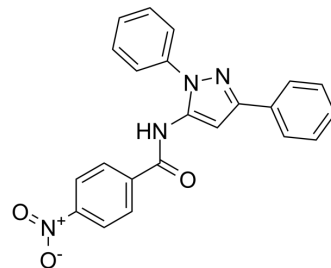
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## VU-29

|                    |                                                               |       |          |
|--------------------|---------------------------------------------------------------|-------|----------|
| Cat. No.:          | HY-107508                                                     |       |          |
| CAS No.:           | 890764-36-0                                                   |       |          |
| Molecular Formula: | C <sub>22</sub> H <sub>16</sub> N <sub>4</sub> O <sub>3</sub> |       |          |
| Molecular Weight:  | 384.39                                                        |       |          |
| Target:            | mGluR                                                         |       |          |
| Pathway:           | GPCR/G Protein; Neuronal Signaling                            |       |          |
| Storage:           | Powder                                                        | -20°C | 3 years  |
|                    |                                                               | 4°C   | 2 years  |
|                    | In solvent                                                    | -80°C | 6 months |
|                    |                                                               | -20°C | 1 month  |



### SOLVENT & SOLUBILITY

|                                                                               |                                                                                     |                                      |           |            |            |       |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------|-----------|------------|------------|-------|
| In Vitro                                                                      | DMSO : 50 mg/mL (130.08 mM; Need ultrasonic)                                        |                                      |           |            |            |       |
|                                                                               | Preparing Stock Solutions                                                           | <div>Solvent<br/>Concentration</div> | Mass      | 1 mg       | 5 mg       | 10 mg |
|                                                                               |                                                                                     |                                      |           |            |            |       |
|                                                                               |                                                                                     | 1 mM                                 | 2.6015 mL | 13.0076 mL | 26.0152 mL |       |
|                                                                               |                                                                                     | 5 mM                                 | 0.5203 mL | 2.6015 mL  | 5.2030 mL  |       |
|                                                                               |                                                                                     | 10 mM                                | 0.2602 mL | 1.3008 mL  | 2.6015 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 |                                      |           |            |            |       |
|                                                                               | Solubility: 5 mg/mL (13.01 mM); Suspended solution; Need ultrasonic                 |                                      |           |            |            |       |

### BIOLOGICAL ACTIVITY

|                           |                                                                                                                                                                                                                                                                                                              |                                          |                                          |                                       |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|---------------------------------------|
| Description               | VU-29 is a positive allosteric modulator of metabotropic glutamate 5 (mGlu5) receptor (EC <sub>50</sub> =9 nM and K <sub>i</sub> =244 nM for rmGluR5). VU-29 is selective for mGluR5 relative to other mGluR subtypes (EC <sub>50</sub> : rmGluR1/rmGluR2=557 nM/1.5 μM; hmGluR4=154 nM) <sup>[1][2]</sup> . |                                          |                                          |                                       |
| IC <sub>50</sub> & Target | rat mGluR5<br>9 nM (EC <sub>50</sub> )                                                                                                                                                                                                                                                                       | rat mGluR1<br>557 nM (EC <sub>50</sub> ) | rat mGluR2<br>1.5 μM (EC <sub>50</sub> ) | hmGluR4<br>154 nM (EC <sub>50</sub> ) |
|                           | rat mGluR5<br>224 nM (K <sub>i</sub> )                                                                                                                                                                                                                                                                       |                                          |                                          |                                       |
| In Vivo                   | VU-29 (500 nM) potentiates DHPG induced increases in phosphoinositide (PI) hydrolysis in rat hippocampal slices. VU-29 potentiates threshold TBS-induced long term potentiation (LTP) in rat hippocampal CA1 region. VU-29 (1 μM) potentiates                                                                |                                          |                                          |                                       |

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chemically induced mGluR-long term depression (LTD) in area CA1 of the rat hippocampus. VU-29 (1  $\mu$ M) potentiates stimulus-induced NMDA receptor-independent LTD<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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[1]. Ayala JE, et al. mGluR5 positive allosteric modulators facilitate both hippocampal LTP and LTD and enhance spatial learning. Neuropsychopharmacology. 2009;34(9):2057-2071.

[2]. Chen Y, et al. Interaction of novel positive allosteric modulators of metabotropic glutamate receptor 5 with the negative allosteric antagonist site is required for potentiation of receptor responses. Mol Pharmacol. 2007;71(5):1389-1398.

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

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