



# 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 HandelsgmbH

Quellenstraße 110, A-1100 Wien

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

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

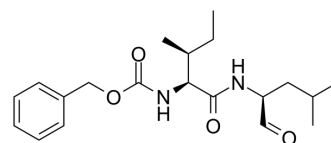
[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

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

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

## Z-Ile-Leu-aldehyde

|                    |                                                                                                                              |
|--------------------|------------------------------------------------------------------------------------------------------------------------------|
| Cat. No.:          | HY-12465                                                                                                                     |
| CAS No.:           | 161710-10-7                                                                                                                  |
| Molecular Formula: | C <sub>20</sub> H <sub>30</sub> N <sub>2</sub> O <sub>4</sub>                                                                |
| Molecular Weight:  | 362.46                                                                                                                       |
| Target:            | Notch; γ-secretase; Apoptosis                                                                                                |
| Pathway:           | Neuronal Signaling; Stem Cell/Wnt; Apoptosis                                                                                 |
| Storage:           | <div> Powder -20°C 3 years </div> <div> 4°C 2 years </div> <div> In solvent -80°C 6 months </div> <div> -20°C 1 month </div> |



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 41 mg/mL (113.12 mM)  
 \* "≥" means soluble, but saturation unknown.

|                              | Solvent<br>Concentration | Mass | 1 mg      | 5 mg       | 10 mg      |
|------------------------------|--------------------------|------|-----------|------------|------------|
|                              |                          |      |           |            |            |
| Preparing<br>Stock Solutions | 1 mM                     |      | 2.7589 mL | 13.7946 mL | 27.5893 mL |
|                              | 5 mM                     |      | 0.5518 mL | 2.7589 mL  | 5.5179 mL  |
|                              | 10 mM                    |      | 0.2759 mL | 1.3795 mL  | 2.7589 mL  |

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

### BIOLOGICAL ACTIVITY

#### Description

Z-Ile-Leu-aldehyde (Z-IL-CHO) is a potent and competitive peptide aldehyde inhibitor of γ-secretase and notch<sup>[1][2]</sup>.

#### In Vitro

Z-Ile-Leu-aldehyde (ILCHO) significantly downregulates Th17-associated cytokine levels in murine Th17 in vitro polarization assays<sup>[1]</sup>.

Z-Ile-Leu-aldehyde (GSI XII) induces apoptosis of murine MOPC315.BM myeloma cells with high Notch activity<sup>[2]</sup>.

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

RT-PCRsup>[1]

|                  |                                                |
|------------------|------------------------------------------------|
| Cell Line:       | CD4 <sup>+</sup> T cells from C57BL/6 mice.    |
| Concentration:   | 25 μM.                                         |
| Incubation Time: | 24, 48, 72 hours.                              |
| Result:          | Downregulated RORγt and IL-17 mRNA expression. |

|         |                                                                                                                                                                                                                                                                                                                            |                                                                                                                               |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
|         | Cell Viability Assays <sup>sup&gt;</sup> [2]                                                                                                                                                                                                                                                                               |                                                                                                                               |
|         | Cell Line:                                                                                                                                                                                                                                                                                                                 | MOPC315.BM cells.                                                                                                             |
|         | Concentration:                                                                                                                                                                                                                                                                                                             | 0, 12, 15 $\mu$ M.                                                                                                            |
|         | Incubation Time:                                                                                                                                                                                                                                                                                                           | 24-48 h hours.                                                                                                                |
|         | Result:                                                                                                                                                                                                                                                                                                                    | Reduced viability and induced apoptosis in MOPC315.BM cells                                                                   |
| In Vivo | Z-Ile-Leu-aldehyde (GSI XII, 10 mg/kg, Intraperitoneally either for 14 days) controls myeloma bone disease mainly by targeting Notch in MM cells and possibly in osteoclasts in their microenvironment <sup>[2]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |                                                                                                                               |
|         | Animal Model:                                                                                                                                                                                                                                                                                                              | MOPC315.BM mouse model <sup>[2]</sup> .                                                                                       |
|         | Dosage:                                                                                                                                                                                                                                                                                                                    | 10 mg/kg.                                                                                                                     |
|         | Administration:                                                                                                                                                                                                                                                                                                            | Intraperitoneally either for 14 days.                                                                                         |
|         | Result:                                                                                                                                                                                                                                                                                                                    | Reduces myeloma-specific paraprotein levels in the MOPC315.BM model.<br>Diminished osteolytic lesions in the MOPC315.BM mice. |

## CUSTOMER VALIDATION

- Front Mol Biosci. 2021 Oct 22;8:652443.

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

## REFERENCES

- [1]. Reem Suleiman, et al. The Role Of Notch In Th17 Differentiation. University of Massachusetts Amherst. 9-2013.
- [2]. Schwarzer R, et al. Notch pathway inhibition controls myeloma bone disease in the murine MOPC315.BM model. Blood Cancer J. 2014 Jun 13;4:e217.

**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