



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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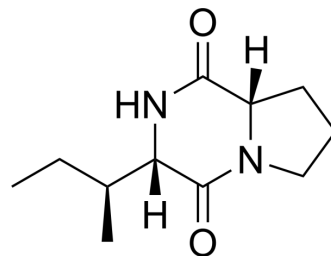
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## Cyclo(IP)

<b>Cat. No.:</b>	HY-P3472
<b>CAS No.:</b>	57089-60-8
<b>Molecular Formula:</b>	C <sub>11</sub> H <sub>18</sub> N <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	210.27
<b>Sequence:</b>	Cyclo(Ile-Pro)
<b>Sequence Shortening:</b>	Cyclo(IP)
<b>Target:</b>	Others
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Cyclo(IP) (Cyclo-(L-Pro-L-Ile)), a Diketopiperazine can be derived From <i>Bacillus thuringiensis</i> JCK-1233, results in suppression of PWD severity and increased the expression of defense-related genes similarly to <i>Bacillus thuringiensis</i> JCK-1233 treatment <sup>[1]</sup> .
<b>In Vitro</b>	Cyclo(IP) (Cyclo-(L-Pro-L-Ile)) shows moderately enhanced expression of PR-1, PR-2, PR-3, PR-4, PR-5, and PR-9 genes following inoculation with PWN compared to that in the untreated control, indicating that they mitigated the burst of hypersensitive reaction in susceptible pine seedlings <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Ae Ran Park, et al. A Diketopiperazine, Cyclo-(L-Pro-L-Ile), Derived From *Bacillus thuringiensis* JCK-1233 Controls Pine Wilt Disease by Elicitation of Moderate Hypersensitive Reaction. *Front Plant Sci.* 2020 Jul 8:11:1023.

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

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