

Cyclo(Tyr-Val)

## Chemical Properties

CAS No.:	21754-25-6
Formula:	C <sub>14</sub> H <sub>18</sub> N <sub>2</sub> O <sub>3</sub>
Molecular Weight:	N/A
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

## Biological Description

In vitro	<p>In order to provide more natural antifouling compounds, marine bacterium <i>Pseudomonas putida</i> isolated from the sponge <i>Haliclona</i> sp. was explored to test its anti-diatom compounds. METHODS AND RESULTS: The strain was identified by colonial morphology, scanning electron microscope (SEM) and 16S rDNA sequence analysis. The separation procedure was guided by bioactive (Anti-diatom) and chemical (TLC, DAD-HPLC and <sup>1</sup>H NMR) analysis, and their structures were elucidated by spectrographic techniques. The anti-diatom activity of all purified compounds was assayed. Strain 272 isolated from the sponge <i>Haliclona</i> sp. was identified as <i>Pseudomonas putida</i>. Six diketopiperazine compounds were isolated from the culture of this strain and their structures were determined as cyclo(Leu-Pro) (1), cyclo(Leu-Ala) (2), cyclo(Phe-Ala) (3), Cyclo(Tyr-Val) (4), cyclo(Ala-Tyr) (5), cyclo(Ala-Trp) (6); Compounds 3 and 6 displayed significant anti-diatom activity with the inhibitory rate of 50% and 85% at the concentration of 50 microg/mL, respectively. CONCLUSIONS: The anti-diatom compounds isolated from marine bacterium <i>Pseudomonas putida</i> were cyclo(Phe-Ala) and cyclo(Ala-Trp).</p>
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## Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

### Reference

1. Anti-diatom compounds from marine bacterium *Pseudomonas putida*. *Acta Microbiologica Sinica*, 2013, 53(8):825.

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