PRODUCT INFORMATION



Cyclo(Phe-Pro)

Item No. 34758

CAS Registry No.:	14705-60-3
Formal Name:	hexahydro-3-(phenylmethyl)-
	pyrrolo[1,2-a]pyrazine-1,4-dione
Synonyms:	A-64863, Cyclo(phenylalanylprolyl), cFP
MF:	$C_{14}H_{16}N_2O_2$
FW:	244.3
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.	

Laboratory Procedures

Cyclo(Phe-Pro) is supplied as a solid. A stock solution may be made by dissolving the cyclo(Phe-Pro) in the solvent of choice, which should be purged with an inert gas. Cyclo(Phe-Pro) is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of cyclo(Phe-Pro) in these solvents is approximately 1 mg/ml.

Description

Cyclo(Phe-Pro) is a bacterial guorum-sensing molecule that has been found in V. cholerae.¹ It enhances ToxR-dependent transcription of leuO, a DNA binding protein, and inhibits virulence factor production in V. cholerae. Cyclo(Phe-Pro) is an inhibitor of the interaction between retinoic acid-inducible gene I (RIG-I) and the ubiquitin ligase TRIM25.² It increases the viral load in Huh7 cells infected with hepatitis C virus (HCV) when used at concentrations of 1, 2.5, and 5 mM. Cyclo(Phe-Pro) (50 mg/kg) reduces the expression of IFN- β induced by poly(I:C) and increases serum HCV titers in animal models of HCV infection.

References

- 1. Bina, X.R., Taylor, D.L., Vikram, A., et al. Vibrio cholerae ToxR downregulates virulence factor production in response to cyclo(Phe-Pro). mBio 4(5), e00366-13 (2013).
- 2. Lee, W., Lee, S.-H., Kim, M., et al. Vibrio vulnificus quorum-sensing molecule cyclo(Phe-Pro) inhibits RIG-I-mediated antiviral innate immunity. Nat. Commun. 9(1), 1606 (2018).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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