

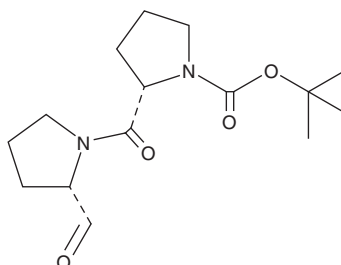
PRODUCT INFORMATION



Z-Prolyl-prolinal

Item No. 41535

CAS Registry No.: 86925-97-5
Formal Name: (2S)-2-[[[(2S)-2-formyl-1-pyrrolidinyl] carbonyl]-1-pyrrolidinecarboxylic acid, 1,1-dimethylethyl ester
Synonyms: Benzyloxycarbonyl-prolyl-prolinal, ZPP
MF: C₁₅H₂₄N₂O₄
FW: 296.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Z-Prolyl-prolinal (ZPP) is supplied as a solid. A stock solution may be made by dissolving the ZPP in the solvent of choice, which should be purged with an inert gas. ZPP is soluble (≥10 mg/ml) in ethanol and DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ZPP can be prepared by directly dissolving the solid in aqueous buffers. ZPP is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

ZPP is an inhibitor of prolyl endopeptidase (K_i s = 0.35 and 0.5 nM for the mouse and human enzymes, respectively).¹ ZPP (4 and 40 μM) inhibits the formation of angiotensin (1-7) from angiotensin II in kidney sections isolated from wild-type and *Ace2*^{-/-} mice.² *In vivo*, ZPP (10 and 50 mg/kg) reduces hippocampal neuronal cell death in a rat model of global ischemia.³

References

1. Bakker, A.V., Jung, S., Spencer, R.W., *et al.* Slow tight-binding inhibition of prolyl endopeptidase by benzyloxycarbonyl-prolyl-prolinal. *Biochem. J.* **271**(2), 559-562 (1990).
2. Grobe, N., Weir, N.M., Leiva, O., *et al.* Identification of prolyl carboxypeptidase as an alternative enzyme for processing of renal angiotensin II using mass spectrometry. *Am. J. Physiol. Cell Physiol.* **304**(10), C945-C953 (2013).
3. Shishido, Y., Furushiro, M., Tanabe, S., *et al.* Effects of prolyl endopeptidase inhibitors and neuropeptides on delayed neuronal death in rats. *Eur. J. Pharmacol.* **372**(2), 135-142 (1999).

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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