



# **Data Sheet**

Product Name: H-Val-Pro-Pro-OH (TFA)

Cat. No.: CS-0077836

Molecular Formula: C17H26F3N3O6

Molecular Weight: 425.40

Target: Angiotensin Receptor
Pathway: GPCR/G Protein

**Solubility:**  $H2O: \ge 160 \text{ mg/mL } (376.12 \text{ mM})$ 

#### **BIOLOGICAL ACTIVITY:**

H-Val-Pro-Pro-OH (TFA), a milk-derived proline peptides derivative, is an inhibitor of Angiotensin I converting enzyme (ACE), with an IC<sub>50</sub> of 9  $\mu$ M. IC50 & Target: IC50: 9  $\mu$ M (ACE)<sup>[1]</sup>. In Vitro: H-Val-Pro-Pro-OH (TFA), a proline peptides derivative, could inhibit Angiotensin I converting enzyme (ACE), with an IC<sub>50</sub> of 9  $\mu$ M<sup>[1]</sup>. H-Val-Pro-Pro-OH (TFA) could enhance insulin sensitivity and prevent insulin resistance in 3T3-F442A pre-adipocytes. H-Val-Pro-Pro-OH (TFA) also has anti-hypertensive and anti-inflammatory functions. H-Val-Pro-Pro-OH (TFA) further enhances the expression of glucose transporter 4 (GLUT4) in adipocytes and restores glucose uptake in TNF-treated adipocytes<sup>[2]</sup>.

#### References:

- [1]. Nakamura Y, et al. Purification and characterization of angiotensin I-converting enzyme inhibitors from sour milk. J Dairy Sci. 1995 Apr;78(4):777-83.
- [2]. Chakrabarti S, et al. Milk-Derived Tripeptides IPP (Ile-Pro-Pro) and VPP (Val-Pro-Pro) Enhance Insulin Sensitivity and Prevent Insulin Resistance in 3T3-F442A Preadipocytes. J Agric Food Chem. 2018 Oct 3;66(39):10179-10187.

## **CAIndexNames:**

H-Val-Pro-Pro-OH (TFA)

### **SMILES:**

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

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