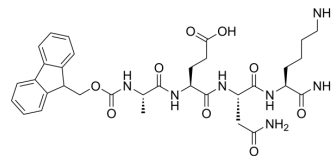


## Fmoc-Ala-Glu-Asn-Lys-NH2

Cat. No.:	HY-114174
CAS No.:	220701-06-4
Molecular Formula:	C <sub>33</sub> H <sub>43</sub> N <sub>7</sub> O <sub>9</sub>
Molecular Weight:	681.74
Sequence Shortening:	{Fmoc}-AENK-NH2
Target:	Amyloid-β
Pathway:	Neuronal Signaling
Storage:	Sealed storage, away from moisture and light, under nitrogen
	Powder    -80°C    2 years
	-20°C    1 year



\* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (146.68 mM; ultrasonic and warming and heat to 80°C)

H<sub>2</sub>O : ≥ 10 mg/mL (14.67 mM)

\* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.4668 mL	7.3342 mL	14.6683 mL
	5 mM	0.2934 mL	1.4668 mL	2.9337 mL
	10 mM	0.1467 mL	0.7334 mL	1.4668 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Fmoc-Ala-Glu-Asn-Lys-NH2 is a selective asparagine endopeptidase (AEP) inhibitor peptide and suppresses amyloid precursor protein (APP) cleavage. AEP, a pH-controlled cysteine proteinase, is activated during ageing and mediates APP proteolytic processing<sup>[1]</sup>.

#### In Vitro

Fmoc-Ala-Glu-Asn-Lys-NH2 antagonizes APP processing by AEP, whereas other small molecular inhibitors and inactive peptide AEQK were without effect<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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[1]. Chen G, et al. Netrin-1 receptor UNC5C cleavage by active  $\delta$ -secretase enhances neurodegeneration, promoting Alzheimer's disease pathologies. *Sci Adv.* 2021 Apr 16;7(16):eabe4499.

[2]. Zhang Z, et al. Delta-secretase cleaves amyloid precursor protein and regulates the pathogenesis in Alzheimer's disease. *Nat Commun.* 2015;6:8762. Published 2015 Nov 9.

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

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