α-Synuclein (61-75) (TFA)

Cat. No.: HY-P3140A

Molecular Formula: $C_{62}H_{104}F_3N_{17}O_{25}$

Molecular Weight: 1544.58

Sequence Shortening: EQVTNVGGAVVTGVT

EQVTNVGGAVVTGVT (TFA salt)

Target: α-synuclein

Pathway: Neuronal Signaling

Storage: Sealed storage, away from moisture

Powder -80°C 2 years

-20°C 1 year

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

SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (64.74 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.6474 mL	3.2371 mL	6.4743 mL
	5 mM	0.1295 mL	0.6474 mL	1.2949 mL
	10 mM	0.0647 mL	0.3237 mL	0.6474 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (1.62 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (1.62 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

α-Synuclein (61-75) TFA is the 61-75 fragment of α-Synuclein. α-Synuclein is an abundant neuronal protein that is highly enriched in presynaptic nerve terminals. α-Synuclein is a potential biomarker for Parkinson's disease (PD)[1][2].

In Vitro

Lewy bodies containing α-synuclein are a neuropathological hallmark of PD, and missense mutations in α-Synuclein (A30P, E46K, H50Q, G51D, A53E, A53T), as well as α-Synuclein gene duplications and triplications, appear to cause PD. Moreover, polymorphisms in regulatory elements of the α-Synuclein gene predispose individuals to PD and are linked to an early onset of the disease. The non-Aβ-amyloid component (NAC) region of α-synuclein is relatively hydrophobic and aggregation-prone in human α-Synuclein but not in mouse α-Synuclein nor in the corresponding homologous region of human β-synuclein. Yet, β-synuclein is more homologous to α-Synuclein in the N-terminal sequences (74%) than γ-synuclein (67%)[1].

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

REFERENCES

[1]. Jacqueline Burré, et al. Cell Biology and Pathophysiology of α-Synuclein. Cold Spring Harb Perspect Med. 2018 Mar 1;8(3):a024091.

[2]. Nelson Ferreira, et al. Trans-synaptic spreading of alpha-synuclein pathology through sensory afferents leads to sensory nerve degeneration and neuropathic pain. Acta Neuropathol Commun. 2021 Feb 25;9(1):31.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA