

# **Screening Libraries**

**Proteins** 

# Inhibitors

# **Product** Data Sheet

## Mca-SEVNLDAEFK(Dnp)

Cat. No.: HY-P4919

CAS No.: 1802078-31-4

Molecular Formula:  $C_{68}H_{88}N_{14}O_{27}$ 

Molecular Weight: 1533.5

Sequence: {Mca}-Ser-Glu-Val-Asn-Leu-Asp-Ala-Glu-Phe-{Lys(Dnp)}

Sequence Shortening: {Mca}-SEVNLDAEF-{Lys(Dnp)}

Target: Beta-secretase Pathway: **Neuronal Signaling** 

Please store the product under the recommended conditions in the Certificate of Storage:

Analysis.

### **BIOLOGICAL ACTIVITY**

Description

Mca-SEVNLDAEFK(Dnp) is a Beta-secretase 1 (BACE-1) peptide FRET substrate, containing the 'Swedish' Lys-Met/Asn-Leu mutation of the amyloid precursor protein (APP) β-secretase cleavage site. Cleavage at -Leu-Asp- of Mca-SEVNLDAEFK(Dnp) liberates the highly fluorescent 7-methoxycoumarin (Mca) fragment from the proximity quenching effect of the 2,4dinitrophenyl (Dnp) internal quencher resulting in a large and easily detectable increase in fluorescence intensity.

### **REFERENCES**

[1]. Vila-Real H, et al. Peptidomimetic \(\beta\)-Secretase Inhibitors Comprising a Sequence of Amyloid-\(\beta\) Peptide for Alzheimer's Disease. J Med Chem. 2015 Jul 23;58(14):5408-18.

[2]. Yen YC, et al. Development of an Efficient Enzyme Production and Structure-Based Discovery Platform for BACE1 Inhibitors. Biochemistry. 2019 Nov 5;58(44):4424-4435.

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

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