

Catalog Number: CM06553

产品信息

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CM06553

CAS号:
2803948-60-7

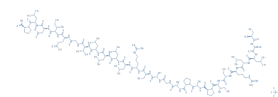
分子式:
C₁₂₁H₂₀₇F₃N₃₂O₃₇

主要靶点:
STAT

主要通路:
JAK/STAT Signaling

分子量:
2759.1257

MDL NO:
MFCD18782393



描述

Colivelin (sequence SALLRSIPAPAGASRLLLLTGEIDL P) is composed of activity-dependent neurotrophic factor (ADNF) C-terminally fused to AGA-(C8R)HNG17, a potent HN derivative. It works as a neuroprotective peptide and activator of STAT3. Colivelin-induced neuroprotection has been confirmed to occur via two neuroprotective pathways: one mediated by Ca²⁺/calmodulin-dependent protein kinase IV, triggered by ADNF, and one mediated by signal transducer and activator of transcription 3, triggered by HN. Colivelin might serve as a novel drug candidate for treatment of AD. Administration of Colivelin not only completely suppresses impairment in spatial working memory induced by repetitive intracerebroventricular injection of Abeta25-35 or Abeta1-42, but also it antagonizes neuronal loss in the CA1 region of hippocampus induced by hippocampal injection of Abeta1-42. In addition, intraperitoneally administered Colivelin suppresses memory impairment caused by a muscarinic acetylcholine receptor antagonist, 3-quinuclidinyl benzilate. Colivelin may ameliorate memory impairment of AD models by supporting cholinergic neurotransmission, which is at least partly mediated by STAT3-mediated transcriptional upregulation of ChAT and VACHT.

储存

储存条件:

粉末	-20°C	3年
液体	-80°C	1年

运输条件:

Shipped in cold pack

参考文献

- 1 Chiba T, et al. Development of a femtomolar-acting humanin derivative named colivelin by attaching activity-dependent neurotrophic factor to its N terminus: characterization of colivelin-mediated neuroprotection against Alzheimer's disease-relevant insults in vitro and in vivo. *J Neurosci*. 2005 Nov 2;25(44):10252-61.
- 2 Zhao H, et al. Colivelin Rescues Ischemic Neurons and Axons Involving JAK/STAT3 Signaling Pathway. *Neuroscience*. 2019 Sep 15;416:198-206.
- 3 Pan Z, et al. Upregulation of HSP72 attenuates tendon adhesion by regulating fibroblast proliferation and collagen production via blockade of the STAT3 signaling pathway. *Cell Signal*. 2020 Mar 18:109606.
- 4 Fang YY, et al. MFG-E8 alleviates oxygen-glucose deprivation-induced neuronal cell apoptosis by STAT3 regulating the selective polarization of microglia. *Int J Neurosci*. 2020 Mar 12:1-10.
- 5 Chiu WC, et al. The Synthetic β -Nitrostyrene Derivative CYT-Rx20 Inhibits Esophageal Tumor Growth and Metastasis via PI3K/AKT and STAT3 Pathways. *PLoS One*. 2016 Nov 22;11(11):e0166453.