

Product Data Sheet

Product Name: Tat-beclin 1

Cat. No.: GC63840

Chemical Properties

Cas. No. 1423821-88-8

Formula $C_{164}H_{251}N_{57}O_{45}$ M.Wt 3741.1

Solubility Water : 25 mg/mL (6.68 mM; Need ultrasonic) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

YGRKKRRQRRRGGTNVFNATFEIWHDGEFGT

Background

Tat-beclin 1, a peptide derived from a region of the autophagy protein (beclin 1), is a potent inducer of autophagy and interacts with negative regulator of autophagy, GAPR-1 (GLIPR2). Tat-beclin 1 decreases the accumulation of polyglutamine expansion protein aggregates and the replication of

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several pathogens (including HIV-1) in vitro, and reduces mortality in mice infected with chikungunya (CHIKV) or West Nile virus (WNV)[1].

Tat-beclin 1 (10, 30, 50 μ M; 24 hours) induces autophagy and results in a dose-dependent decrease in amounts of p62, a selective autophagy substrate, and a dose-dependent conversion of the non-lipidated form of LC3, LC3-I, to the lipidated, autophagosome-associated form of LC3, LC3-II, in multiple cell lines and primary murine embryonic fibroblasts (MEFs)[1]. Tat-beclin 1 (10 μ M; 2-4 hours post-infection) decreases the intracellular survival of *L. monocytogenes* in primary murine bone-marrow-derived macrophages (BMDMs)[1].

Tat-beclin 1 (15 mg/kg; i.p.; daily; beginning 1 day post-infection for 20 days) can induce autophagy in peripheral tissues in adult mice as well as in the central nervous system of neonatal mice (6-week-old GFP-LC3 mice)[1].

[1]. Sanae Shoji-Kawata, et al. Identification of a Candidate Therapeutic Autophagy-Inducing Peptide. *Nature*. 2013 Feb 14;494(7436):201-6.

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