

Product Data Sheet

Product Name: ES9-17
Cat. No.: GF13655

Chemical Properties

Cas. No. 55854-43-8

Formula C₁₀H₈BrNO₂S₂ M.Wt 318.2

Solubility DMSO : 125 mg/mL (392.82 mM; Need ultrasonic) Storage -20°C, sealed storage, away from moisture

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



Background

ES9-17 is an analog of ES9 (endosidin9), which is an inhibitor of clathrin heavy chain (CHC). ES9-17

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

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is an inhibitor of clathrin-mediated endocytosis (CME), a major route for internalization of plasma membrane proteins and molecules from the extracellular environment in plants. ES9-17 inhibits the uptake of transferrin and FM4-64. ES9-17 also inhibits root growth of Arabidopsis seedlings.

ES9-17 (0-100 μ M; 30 min) inhibits the uptake of the lipophilic styryl endocytic tracer dye (FM4-64), with an EC_{50} value of 13 μ M^[1].

ES9-17 (30 μ M; 30 min) doesn't deplete cellular ATP^[1].

ES9-17 (30 μ M; 30 min) also reduces the uptake of transferrin in HeLa cells^[1].

ES9-17 targets to CHC and mediates transport of materials among organelles without causing cytoplasmic acidification^[1].

[1]. Dejonghe W, et al. Disruption of endocytosis through chemical inhibition of clathrin heavy chain function. Nat Chem Biol. 2019 Jun;15(6):641-649.

[2]. Huang L, et al. Progress in using chemical biology as a tool to uncover novel regulators of plant endomembrane trafficking. Curr Opin Plant Biol. 2019 Dec;52:106-113.

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