

SBE- β -CD

Chemical Properties

CAS No. : 182410-00-0

Formula:

Molecular Weight:

Storage: Keep away from moisture, Store under nitrogen
Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

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| Description | SBE- β -CD (Sulfobutylether- β -Cyclodextrin) is a β -cyclodextrin derivative with a sodium sulfonate salt separated from the lipophilic cavity by a butyl ether spacer group, or sulfobutylether. SBE- β -CD is widely used as a co-solvent in biological experiments. |
| Targets(IC50) | Others |
| In vivo | METHODS: To study in vivo activity, MR-L2 (300 nl; 2 \times 10 ⁻⁴ M; 1:20, DMSO in 20% SBE- β -CD) was microinfused into rat NAcS. RESULTS: MR-L2 significantly reduced inactive pressor pressures, whereas control administration of SBE- β -CD had no effect. [1] |

Solubility Information

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| Solubility | H2O: 250.00 mg/mL, Sonication is recommended. DMSO: 5.63 mg/mL, Sonication and heating are recommended. ($<$ 1 mg/ml refers to the product slightly soluble or insoluble) |
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Reference

- Sharp BM, et al. Inactivation of phosphodiesterase-4B gene in rat nucleus accumbens shell by CRISPR/Cas9 or positive allosteric modulation of the protein affects the motivation to chronically self-administer nicotine. *Sci Rep.* 2024 Jan 31;14(1):2562.
- Sharp B M, Jiang Q, Kim P, et al. Inactivation of phosphodiesterase-4B gene in rat nucleus accumbens shell by CRISPR/Cas9 modulates the motivation to chronically self-administer nicotine. *bioRxiv.* 2023: 2023.03. 07.531588.
- Sharp B M, Jiang Q, Kim P, et al. Inactivation of phosphodiesterase-4B gene in rat nucleus accumbens shell by CRISPR/Cas9 or positive allosteric modulation of the protein affects the motivation to chronically self-administer nicotine. *Scientific Reports.* 2024, 14(1): 2562.
- Lockwood SF, et al. Improved aqueous solubility of crystalline astaxanthin (3,3'-dihydroxy-beta, beta-carotene-4,4'-dione) by Captisol (sulfobutyl ether beta-cyclodextrin). *J Pharm Sci.* 2003 Apr;92(4):922-926.
- Charman SA, et al. Alteration of the intravenous pharmacokinetics of a synthetic ozonide antimalarial in the presence of a modified cyclodextrin. *J Pharm Sci.* 2006 Feb;95(2):256-67
- Fettiplace MR, et al. Cardiac depression induced by cocaine or cocaethylene is alleviated by lipid emulsion more effectively than by sulfobutylether- β -cyclodextrin. *Acad Emerg Med.* 2015 May;22(5):508-17

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481