Product Data Sheet

Chemical Properties

Product Name: EDC.HCl

Cas No.: 25952-53-8

M.Wt: 191.7

Formula: C8H17N3.HCl

Synonyms: N/A

Chemical Name: 3-(ethyliminomethyldeneamino)-N,N-dimethylpropan-1-amine; hydrochloride

Canonical SMILES: CCN=C=NCCCN(C)C.Cl

Solubility: ≥19.2 mg/mL in DMSO, ≥39.6 mg/mL in ETOH, ≥39 mg/mL in H2O

Storage: Desiccate 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.

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

Biological Activity

Targets: Amino Acids & Building Blocks

Pathways: Peptide Coupling Reagents

Description:

IC50: Not available.

EDC.HCl, which is commonly regarded as carbodiimide reagents, serves as a very useful tool for the formation of amide bonds (peptide bonds) in an aqueous medium. As one of the carbodiimide reagents, it is also effectively applied in anhydroxydation, polynucleotide synthesis, esterification and lactonization. In addition, EDC.HCl is also widely used as water soluble
condensing reagent. [1] In vitro: Carbodiimide-mediated coupling method was one of the most traditional approaches for peptide-bond formation. With the aim to synthesis target compounds, carbodiimide reagents were added after thoroughly mixing of a carboxylic acid and an amine. After the reaction was accomplished, the carbodiimide reagent was then changed into its corresponding urea. [2] Recently, a simple and fast detection method using spectrophotometric flow injection analysis was developed. This method was based on the reaction between EDC.HCl and pyridine in acidic aqueous solution. After reaction at 40°C for a while, the absorbance was measured at 400 nm. The calibration curve demonstrated a good linearity from 0 to 10% of EDC·HCl solutions with the following regression equation: $y = 3.15 \times 10^4 x$ ($x$, % concentration of EDC·HCl; $y$, peak area). This approach served to monitoring the concentration of EDC·HCl after its reaction in water. [1] In vivo: So far, no in vivo data has been reported. Clinical trial: So far, no clinical trial has been conducted.

Reference:

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.