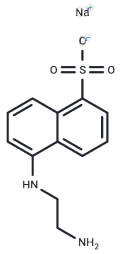
Data Sheet (Cat.No.TD0082)

TargetMol

EDANS sodium

Chemical Properties



CAS No. : 100900-07-0

Formula: C12H13N2NaO3S

Molecular Weight: 288.3

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	EDANS sodium (5-(2-Aminoethylamino)-1-naphthalenesulfonic acid sodium salt) is a donor for developing FRET-based nucleic acid probes that is widely used in real time PCR assays.
Targets(IC50)	Others,Autophagy
In vitro	EDANS sodium salt is much more water-soluble than EDANS acid. It is one of the most popular donors for developing FRET-based protease substrates and nucleic acid probes. EDANS is often paired with DABSYL or DABCYL in FRET-based probes. Its fluorescence is environment sensitive.
Cell Research	Instructions I. Reagent preparation: 1. Preparation of master solution and working solution: Dissolve in appropriate solvent (such as water, PBS), the concentration is usually in the range of 10-100 μM, and the specific concentration depends on the experimental needs. 2. Probe synthesis: When developing FRET probes, EDANS can be used as a donor to pair with a specific acceptor dye. The synthesis of the probe is usually completed by connecting EDANS to the target DNA or RNA sequence. II. Operation steps 1. PCR reaction: 1) Probe design: FRET-based probes usually contain donors (EDANS) and acceptor dyes (such as TAMRA, BHQ, etc.). The design of the probe must ensure that the distance between EDANS and the acceptor is appropriate to optimize energy transfer. 2) PCR reaction: Add the synthesized FRET probe to the real-time PCR reaction and react with DNA polymerase, dNTPs, template DNA and primers. The probe will bind to the specific target sequence during PCR amplification. 3. Fluorescence detection: During the PCR process, the donor dye (EDANS) transfers energy to the acceptor dye through excitation, resulting in changes in the fluorescence signal, and real-time monitoring of the progress of the PCR reaction. 4. Data analysis: Use a real-time PCR instrument (such as a fluorescence quantitative PCR instrument) to monitor changes in the fluorescence signal and calculate the concentration of the target DNA or RNA. Notes: 1. Probe optimization: Selecting the right FRET pair (donor and acceptor) is the key to

Cell Research	success, ensuring that their spectral properties are complementary to achieve optimal energy transfer. 2. Solubility: EDANS sodium has good solubility, but when using it, avoid excessive exposure to strong light to prevent fluorescence bleaching. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMSO: 55 mg/mL (190.77 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4686 mL	17.343 mL	34.6861 mL
5 mM	0.6937 mL	3.4686 mL	6.9372 mL
10 mM	0.3469 mL	1.7343 mL	3.4686 mL
50 mM	0.0694 mL	0.3469 mL	0.6937 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.