Product Name	:	Thioflavin T
Synonyms	:	Basic Yellow 1
Cat No.	:	M22677
CAS Number	:	2390-54-7
Molecular Formula	:	C17H19ClN2S
Formula Weight	:	318.86
Chemical Name	:	——
Description	:	Thioflavin T is a widely used dye for visualizing and is a cationic Benzothiazole dye that shows enhanced fluorescence upon binding to amyloid in tissue sections.Thioflavin T (ThT) is a benzothiazole dye that exhibits enhanced fluorescence upon binding to amyloid fibrils and is commonly used to diagnose amyloid fibrils, both ex vivo and in vitro. Changes in the fluorescence excitation and emission of Thioflavin T are also dependent on the micelle formation. The Thioflavin T micelles of 3 nm diameter are directly visualized using atomic force microscopy, and bound Thioflavin T micelles are observed along the fibril length for representative fibrils. The micelles of Thioflavin T bind amyloid fibrils leading to enhancement of fluorescence emission[1]. In aqueous solutions, Thioflavin T is found to exist as micelles at concentrations commonly used to monitor fibrils by fluorescence assay (~10-20 μM). Specific conductivity changes are measured at varying concentration of Thioflavin T and the critical micellar concentration is calculated to be 4.0±0.5 μM. Increasing concentration of Thioflavin T above the critical micellar concentration shows increased numbers of micelles bound along the length of the amyloid fibrils. Thioflavin T micelles are disrupted at low pH as observed by atomic force microscopy and fluorescence enhancement upon binding of Thioflavin T to amyloid fibrils also reduced by several-fold upon decreasing the pH to below 3.
Pathway	:	Others
Target	:	Other Targets
Receptor	:	Others
Solubility	:	DMSO:21.5 mg/mL(67.43 mM);H2O:12.5 mg/mL (39.20 mM; Need ultrasonic)
SMILES	:	[Cl-].CN(C)c1ccc(cc1)-c1sc2cc(C)ccc2[n+]1C
Storage	:	(-20℃)
Stability	:	≥ 2 years
Reference	:	

1. Khurana R, et al. Mechanism of thioflavin T binding to amyloid fibrils. J Struct Biol. 2005 Sep;151(3):229-38.