

Product Information Sheet

Chemical and Spectral Properties

Appearance:	solid
Molecular Weight:	496.55
Chemical Structure:	$F_{3}C$ O OH OH OH OH OH OH OH
Soluble In:	N/A
Excitation Wavelength:	412
Emission Wavelength:	482

Application Notes

Thioflavin T (ThT), also called Basic Yellow 1 or CI 49005, is a benzothiazole salt. The dye is used to visualize plaques composed of betaamyloid found in the brains of Alzheimer's disease patients. When it binds to beta sheets, such as those in amyloid oligomers, the dye undergoes a characteristic 120 nm red shift of its excitation spectrum that may be selectively excited at 450 nm, resulting in a fluorescence signal at 482 nm. ThT binds rapidly and specifically to the anti-parallel beta-sheet fibrils formed from synthetic beta-amyloid (1-40), but does not bind to monomer or oligomeric intermediates. The binding of ThT does not interfere with the aggregation of betaamyloid peptide into amyloid fibrils. Thioflavin T acid is a valuble tool for making various bioconjugates of Thioflavin T that can direct Thioflavin T to a desired target. It is an essential reagent to make the peptides and other conjugates of Thioflavin T.