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DATASHEET

Thioflavin T (ThT)

Product overview

Name	Thioflavin T (ThT)
Cat No	HB7143
Biological description	Cell-permeable fluorescent amyloid stain for *in vitro* amyloid beta staining in brain tissues. Used to detect amyloid fibrils and to study amyloid fibril structure and the mechanism by which they form. Stains insoluble senile Aβ plaques, confirms formation of β-sheet structure from mutant huntingtin exon-1 aggregates *in vitro* and may also be used to monitor polyglutamine amyloid formation of tNhtt-42Q aggregates in Huntington's diseases models *in vitro*.
Alternative names	Thioflavin T
Biological action	Dyes & stains
Purity	>95%
Description	Cell-permeable fluorescent amyloid stain

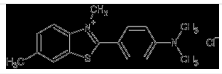
Biological Data

Application notes	Please see our Amyloid Beta Protocol

Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in water (10 mM), and in DMSO (5 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	2-[4-(Dimethylamino)phenyl]-3,6-dimethylbenzothiazolium chloride
Molecular Weight	318.9
Chemical structure	
Molecular Formula	$C_{17}H_{19}ClN_2S$
CAS Number	2390-54-7
PubChem identifier	16853
SMILES	CC1=CC2=C(C=C1)[N+](=C(S2)C3=CC=C(C=C3)N(C)C)C.[Cl-]
InChiKey	JADVWWSKYZXRGX-UHFFFAOYSA-M
Appearance	Yellow solid

References

Mechanism of thioflavin T binding to amyloid fibrils.

Khurana R et al (2005) Journal of structural biology 151
PubMedID 16125973

Thioflavin T fluoresces as excimer in highly concentrated aqueous solutions and as monomer being incorporated in amyloid fibrils.

Sulatskaya AI et al (2017) Scientific reports 7
PubMedID 28526838

The binding of thioflavin-T to amyloid fibrils: localisation and implications.

Krebs MR et al (2005) Journal of structural biology 149
PubMedID 15629655