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## DATASHEET

Thioflavin T (ThT)

### Product overview

<b>Name</b>	Thioflavin T (ThT)
<b>Cat No</b>	HB7143
<b>Alternative names</b>	Thioflavin T
<b>Biological action</b>	Dyes & stains
<b>Purity</b>	>95%
<b>Description</b>	Cell-permeable fluorescent amyloid stain

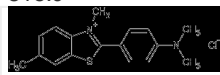
### Biological Data

<b>Biological description</b>	Cell-permeable fluorescent amyloid stain for <i>in vitro</i> 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 A $\beta$ plaques, confirms formation of $\beta$ -sheet structure from mutant huntingtin exon-1 aggregates <i>in vitro</i> and also may also be used to monitor polyglutamine amyloid formation of tNhtt-42Q aggregates in Huntington's diseases models <i>in vitro</i> .
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### Solubility & Handling

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

### Chemical Data

<b>Chemical name</b>	2-[4-(Dimethylamino)phenyl]-3,6-dimethylbenzothiazolium chloride
<b>Molecular Weight</b>	318.9
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>17</sub> H <sub>19</sub> ClN <sub>2</sub> S
<b>CAS Number</b>	2390-54-7
<b>PubChem identifier</b>	16853
<b>SMILES</b>	CC1=CC2=C(C=C1)[N+]([C](S2)C3=CC=C(C=C3)N(C)C)C.[Cl-]
<b>InChi</b>	InChI=1S/C17H19N2S.ClH/c1-12-5-10-15-16(11-12)20-17(19(15)4)13-6-8-14(9-7-13)18(2)3;/h5-11H,1-4H3;1H/q+1;/p-1
<b>InChiKey</b>	JADVWWSKYZXRGX-UHFFFAOYSA-M

### References

#### Mechanism of thioflavin T binding to amyloid fibrils.

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

**PubMedID** [16125973](https://pubmed.ncbi.nlm.nih.gov/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](#)

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