

## Thioflavine S

Cat. No.:	HY-D0972
CAS No.:	1326-12-1
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)

# Thioflavin S

### SOLVENT & SOLUBILITY

In Vitro	H <sub>2</sub> O : ≥ 50 mg/mL * "≥" means soluble, but saturation unknown.
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (Infinity mM); Clear solution; Need ultrasonic and warming and heat to 60°C

### BIOLOGICAL ACTIVITY

Description	Thioflavine S is a fluorescent histochemical marker of dense core senile plaques. Thioflavine S can be used for Alzheimer's research <sup>[1]</sup> .
In Vitro	<p>Thioflavine S staining protocol</p> <ol style="list-style-type: none"> <li>Deparaffinization and hydration of tissue sections: Place slides in holders and treat with the clearing agent xylene (paraffin solvent) and a series of graded EtOH as follows: <ul style="list-style-type: none"> <li>100% xylene - 5 min</li> <li>100% xylene - 5 min</li> <li>50%/50% xylene/100% EtOH - 3 min</li> <li>100% EtOH - 3 min</li> <li>95% EtOH - 3 min</li> <li>70% EtOH - 3 min</li> <li>50% EtOH - 3 min</li> <li>Water - 2 x 3 min</li> </ul> </li> <li>Note: Change the solns after about 5 uses or when you see the soln is not cleanly running off the slides, indicating too much paraffin in them.</li> <li>Incubate in filtered 1% aqueous Thioflavine-S for 8 minutes at room temperature (filter Thioflavin-S before each use). Note: protect thioflavin-S from light, and protect the stained slides from light as much as possible. Thioflavin-S stain should be stored at 4°C.</li> <li>Wash 2x 3 min in 80% ethanol</li> <li>Wash 3 min in 95% ethanol</li> <li>Wash with 3 exchanges of distilled water</li> <li>Coverslip in aqueous mounting media and allow slides to dry in the dark overnight.</li> </ol>

7. Next day, seal coverslip with clear nail polish.

8. Analyze slides within the next few days-weeks because the staining will fade with time. Store the slides in the dark at 4°C. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Adv Mater. 2022 Oct 4;e2207107.
- EBioMedicine. 2022 Apr;78:103980.
- Basic Res Cardiol. 2021 Dec 16;116(1):65.
- Alzheimers Res Ther. 2024 Jan 20;16(1):15.
- J Ginseng Res. 2021 Mar 22.

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## REFERENCES

[1]. McLellan ME, et al. In vivo imaging of reactive oxygen species specifically associated with thioflavine S-positive amyloid plaques by multiphoton microscopy. J Neurosci. 2003 Mar 15;23(6):2212-7.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA