

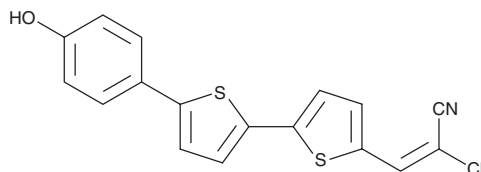
# PRODUCT INFORMATION



## NIAD-4

Item No. 18520

**CAS Registry No.:** 868592-56-7  
**Formal Name:** 2-[[5'-(4-hydroxyphenyl)[2,2'-bithiophen]-5-yl]-methylene]-propanedinitrile  
**MF:** C<sub>18</sub>H<sub>10</sub>N<sub>2</sub>OS<sub>2</sub>  
**FW:** 334.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 257, 300, 467 nm  
**EX./Em. Max:** 475/625 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

NIAD-4 is supplied as a crystalline solid. A stock solution may be made by dissolving the NIAD-4 in the solvent of choice. NIAD-4 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of NIAD-4 in ethanol is approximately 0.2 mg/ml and approximately 25 mg/ml in DMSO and DMF.

NIAD-4 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NIAD-4 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. NIAD-4 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

NIAD-4 is a fluorescent probe that crosses the blood-brain barrier to bind with high affinity to amyloid-β (Aβ) plaques (K<sub>i</sub> = 10 nM).<sup>1</sup> It displays excitation/emission spectra of 475/625 nm, respectively, with the far-red emission occurring upon binding to Aβ.

### Reference

1. Cheng KT. [[5'-(4-Hydroxyphenyl)[2,2'-bithiophen]-5-yl]methylene]-propanedinitrile: NIAD-4. 2006 Sep 11 [Updated 2007 Nov 8]. In: Molecular Imaging and Contrast Agent Database (MICAD) [Internet]. Bethesda (MD): National Center for Biotechnology Information (US); 2004-2013. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK23215/>

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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