

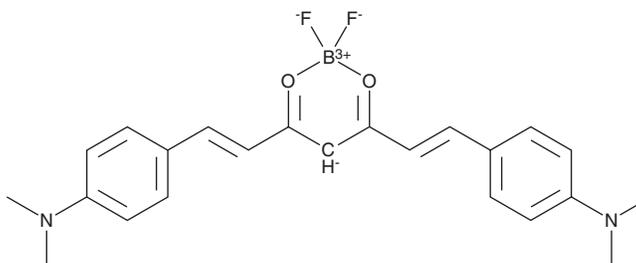
PRODUCT INFORMATION



CRANAD 2

Item No. 19814

CAS Registry No.: 1193447-34-5
Formal Name: (T-4)-[(1E,6E)-1,7-bis[4-(dimethylamino)phenyl]-1,6-heptadiene-3,5-dionato- $\kappa\text{O}^3,\kappa\text{O}^5$] difluoro-boron
MF: $\text{C}_{23}\text{H}_{25}\text{BF}_2\text{N}_2\text{O}_2$
FW: 410.3
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 595 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 2 years



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

Laboratory Procedures

CRANAD 2 is supplied as a crystalline solid. A stock solution may be made by dissolving the CRANAD 2 in the solvent of choice. CRANAD 2 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of CRANAD 2 in these solvents is approximately 2 mg/ml.

CRANAD 2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CRANAD 2 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CRANAD 2 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CRANAD 2 is a curcumin derivative and non-conjugated affinity probe for the detection of amyloid- β ($\text{A}\beta$) deposits *in vitro* and *in vivo*.^{1,2} It has high affinity for $\text{A}\beta$ ($K_d = 38$ nM) and, when bound to $\text{A}\beta$ aggregates, it exhibits a 70-fold increase in fluorescence intensity, a blue shift from 805 to 715 nm, and a large increase in quantum yield.

References

1. Ran, C., Xu, X., Raymond, S.B., *et al.* Design, synthesis, and testing of difluoroboron-derivatized curcumins as near-infrared probes for *in vivo* detection of amyloid- β deposits. *J. Am. Chem. Soc.* **131(42)**, 15257-15261 (2009).
2. Ran, C., Zhao, W., Moir, R.D., *et al.* Non-conjugated small molecule FRET for differentiating monomers from higher molecular weight amyloid beta species. *PLoS One* **6(4)**, e19362 (2011).

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.

WARRANTY AND LIMITATION OF REMEDY

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM