

Catalog	Unit Size
TBS0016-1	1 mg
TBS0016-10	10 mg
TBS0016-20	20 mg
TBS0016-100	100 mg

DESCRIPTION

Tribio CRANAD-2 is a curcumin-derived near-infrared fluorescent probe for the detection of amyloid- β (A β) deposits in vitro and in vivo. It exhibits high affinity for A β (K_d = 38 nM). Upon binding to A β aggregates, CRANAD-2 displays an approximately 70-fold increase in fluorescence intensity, a blue shift in emission from 805 nm to 715 nm, and a significant increase in quantum yield, making it a valuable probe for A β imaging in Alzheimer's disease research.

SYNONYM

- Curcumin-derived near-infrared fluorescent probe
- A β -targeting fluorescent probe

PROPERTIES

Formal Name:	(T-4)-[(1E,6E)-1,7-bis[4-(dimethylamino)phenyl]-1,6-heptadiene-3,5-dionato-kO ³ ,kO ⁵]difluoro-boron
CAS No.:	1193447-34-5
Molecular Formula:	C ₂₃ H ₂₅ BF ₂ N ₂ O ₂
Formula Weight:	410.3
Purity:	≥98%
Form:	A crystalline solid
λ _{max} :	595 nm
Storage:	Store at -20°C Protected from light
Stability:	≥ 4 years

APPLICATION

- Detection of amyloid- β (A β) deposits in vitro and in vivo
- Near-infrared fluorescence imaging of A β plaques
- Alzheimer's disease research
- Evaluation of A β -targeting therapeutics
- Molecular imaging of amyloid pathology

PROCEDURE

CRANAD-2 is supplied as a crystalline solid. For preparing a stock solution, dissolve the compound in an appropriate organic solvent such as DMSO or dimethylformamide (DMF). To minimize oxidation, it is recommended that the solvent be purged with an inert gas before use. CRANAD-2 has a solubility of approximately 2 mg/mL in DMSO and DMF.

For applications requiring aqueous solutions, first dissolve CRANAD 2 in DMSO, and then dilute with the desired aqueous buffer. Using a 1:1 mixture of DMSO and PBS (pH 7.2), CRANAD-2 has a final solubility of approximately 0.5 mg/mL.

To maintain product stability, freshly prepare aqueous working solutions before use. Storage of aqueous solutions for more than 24 hours is not recommended.

RELATIVE PRODUCTS

TBP0001	Amyloid β-Peptide (1-42) / Aβ42 (Human)
TBS3299	Human Amyloid β42 ELISA Kit
TBS3298	Human Amyloid β40 ELISA Kit
TBS3293	Human Phospho-Tau Thr217 (p-Tau217) ELISA Kit
TBS3294	Human Phospho-Tau Thr181 (p-Tau181) ELISA Kit
TBS10029	Amyloid Beta 1-42 (Aβ42) Mouse Monoclonal Capture Antibody
TBS10030	Amyloid Beta 1-42 (Aβ42) Mouse Monoclonal Detection Antibody
TBS10031	Amyloid Beta 1-40 (Aβ40) Mouse Monoclonal Capture Antibody
TBS10032	Amyloid Beta 1-40 (Aβ40) Mouse Monoclonal Detection Antibody

This product is for research use only.