

Catalog	Unit Size
TBS0017-1	1 mg
TBS0017-10	10 mg
TBS0017-20	20 mg
TBS0017-100	100 mg

DESCRIPTION

Tribio CRANAD-28 is a curcumin-derived, non-conjugated fluorescent affinity probe for the detection of amyloid- β ($A\beta$) in vitro and in vivo. It binds with high affinity to multiple $A\beta$ species, including $A\beta$ 40 monomers and aggregates, as well as $A\beta$ 42 monomers, dimers, and oligomers. Unlike most curcumin-based fluorescent probes, CRANAD-28 exhibits a decrease in fluorescence intensity upon binding to $A\beta$, providing a distinct fluorescence response for $A\beta$ detection. CRANAD-28 has been shown to label amyloid plaques and cerebral amyloid angiopathy (CAA) in APP/PS1 mouse brain sections and in live mice, making it a valuable tool for Alzheimer's disease research and molecular imaging.

SYNONYM

- Curcumin-derived fluorescent probe
- Amyloid- β ($A\beta$)-targeting fluorescent probe
- Near-visible fluorescent $A\beta$ imaging probe

PROPERTIES

CAS No.:	1623747-97-6
Molecular Formula:	$C_{27}H_{23}BF_2N_4O_2$
Formula Weight:	484.3
Purity:	$\geq 98\%$
Form:	A crystalline solid
λ_{max} :	245, 479 nm
Emission:	578 nm
Excitation:	498 nm
Storage:	Store at -20°C Protected from light
Stability	≥ 4 years

APPLICATION

- Detection of amyloid- β ($A\beta$) species in vitro and in vivo
- Fluorescence imaging of amyloid plaques and cerebral amyloid angiopathy (CAA)

- Alzheimer's disease research
- Detection of $A\beta$ monomers, oligomers, and aggregates
- Evaluation of $A\beta$ -targeting therapeutics

PROCEDURE

CRANAD-28 is supplied as a crystalline solid. Prepare a stock solution by dissolving the compound in DMSO or DMF to a concentration of up to 2 mg/mL.

For aqueous applications, first dissolve CRANAD-28 in DMSO and then dilute with the desired aqueous buffer (e.g., PBS, pH 7.2). In a 1:1 DMSO:PBS mixture, the maximum recommended concentration is approximately 0.5 mg/mL.

Prepare working solutions immediately before use, and do not store aqueous solutions for longer than 24 hours. Store the solid product at the recommended storage temperature and protect it from light and moisture.

RELATIVE PRODUCTS

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

This product is for research use only.