

DATA SHEET

Product Name: Beta-Amyloid (1-42), Aggregation Kit

Catalog #: Contains components for a Thioflavin Assay:

Beta Amyloid 1-42 Ammonium Hydroxide
5mM Tris
10mM NaOH
10X TBS pH 7.4
HPLC Water
400µM Thioflavin

Source: Recombinant. A DNA sequence encoding the human beta-amyloid (1-42) sequence was expressed in E. coli.

Sequence: DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA

Molecular Mass: 4514.1 Da

Peptide Purity: >97%

Counter Ion: NH₄OH

Supplied As: White lyophilized powder.

Sample Prep.: Resuspend the peptide in 5mM Tris or 10mM NaOH, at a concentration of 1 mg/ml.

Typical preparation for a 100µM peptide concentration within a 750µL reaction volume:

338µL of Beta Amyloid 1-42 Peptide

330µL of HPLC Water

75µL of 10X TBS pH 7.4

rPeptide recommended protocol:

Incubate the sample at 37°C for 3 hours taking thioflavin readings at every 15 minutes. The fluorescence readings should be done at $\lambda_{ex}=440$ nm/20nm ; $\lambda_{em}=485$ nm/20 nm.

*Plates and plate reader are not included within the kit.

Storage: -20 °C

Description: Beta-amyloid peptide (A β), the major constituent of amyloid plaques in the brains of Alzheimer's patients, is thought to be the cause of Alzheimer's Disease (AD)¹⁻³. AD is the most common neurodegenerative disease and afflicts about 10% of the population over 60⁴. Using a proprietary production technique that limits the peptide's conformational changes, rPeptide has produced an ammonium hydroxide beta amyloid

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counter-ion. rPeptide is proud to offer the beta amyloid aggregation kit. This kit allows researchers to monitor the properties of amyloid aggregation.

References:

- 1) Yankner, BA, et. al., (1990) Science, **250**: 279-282
- 2) Selkoe, D.J., (2001) Physiol. Rev, **81**: 741-766
- 3) Stine, W.B. et. al., (2003) J. Biol. Chem, **278**: 11612-11622
- 4) Frank, R.A., et. al., (2003) Neurobiology of Aging, **24**: 521-536

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