DATA SHEET

Product Name:	Beta-Amyloid (1-42), Aggregation Kit
Catalog #:	A-1170
Source:	Recombinant. A DNA sequence encoding the human beta-amyloid (1-42) sequence was expressed in E. coli
Molecular Mass:	4,514 Da theoretical
Protein Purity:	>97% by Mass Spec.
Counter Ion:	NH4OH
Supplied As:	Peptide: white lyophilized powder; aggregation components: liquid
Sample Prep:	1. Resuspend the peptide in 5mM Tris or 10mM NaOH, at a concentration of 1 mg/ml 2. Typical preparation for a 100µM peptide concentration within a 750uL reaction volume: • 338µL of Beta-Amyloid (1-42) Peptide • 337µL of HPLC Water • 75µL of 10X TBS pH 7.4 3. 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 λex=440 nm/20nm; λem=485 nm/20 nm *Plates and plate reader are not included within the kit
Storage:	–20°C
Description:	Beta-amyloid (A-beta) has been long reported as the major constituent of amyloid plaques in the brains of Alzheimer's patients, and is believed by many to be the cause of Alzheimer's Disease (AD). AD is the most common neurodegenerative disease and afflicts more than 10% of the population over 65. Recombinantly expressed and sourced from E. coli, rPeptide's high quality beta-amyloid products offer batch-to-batch consistency and ultrapure starting material for your research needs. The beta-amyloid aggregation kit comes with the NH_4OH counter-ion of the peptide, which is supplied as a stable monomer and can easily form aggregates in most experiments. Such methods can be used to study the kinetics, inhibition, and overall effects aggregation inhibiting compounds.

For research use only. Not for use in humans.

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This kit allows researchers to monitor the properties of amyloid aggregation via Thioflavin T fluorescence assay, which also provides a way to test various compounds and methods of preventing aggregation.

References:

1. Yankner, B., et al., (1990) Science, *250*: 279-282
2. Stine, W., et al., (2003) J. Biol. Chem, *278*: 11612-11622
3. Frank, R., et al., (2003) Neurobiology of Aging, *24*: 521-536
4. Selkoe, D.J., (2001) Physiol. Rev, *81*: 741-766
5. Benoit, S., (2020) Scientific Reports,*11*: 6622

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