

# $\beta$ -Amyloid Peptides

Precision tools for aggregation studies, biochemical characterization, cellular uptake experiments, and tissue-based imaging

AVAILABLE FORMATS: • UNLABELED PEPTIDES • FLUORESCENT-LABELED PEPTIDES • BIOTIN-LABELED PEPTIDES

**$\beta$** -Amyloid ( $A\beta$ ) peptides are central to Alzheimer's disease research due to their role in amyloid aggregation, plaque formation, and cellular dysfunction. Peptide length significantly influences aggregation kinetics, solubility, and experimental behavior, making peptide selection and quality critical for reproducible results.

## $\beta$ -Amyloid (1–28)

Truncated N-terminal fragment

### Low Aggregation Tendency

Structural studies, binding analysis, assay development requiring minimal or controlled aggregation

## $\beta$ -Amyloid (1–40)

Most abundant physiologically

### Moderate Aggregation Tendency

Aggregation kinetics, comparative fibrillization assays, in vitro model systems under defined conditions

## $\beta$ -Amyloid (1–42)

Associated with amyloid formation

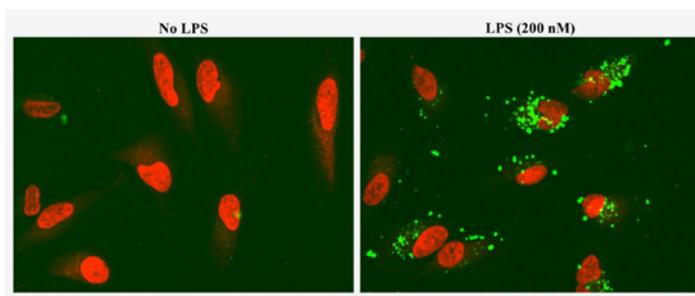
### High Aggregation Tendency

Fibril formation studies, oligomerization research, cellular interaction assays, tissue-based pathology investigations

## CONTROLLED AMYLOID STUDIES

Fluorescently labeled  $\beta$ -Amyloid peptides enable direct monitoring of peptide localization, association, and accumulation in biological systems. These probes are commonly used in cell-based uptake assays, aggregation monitoring, and fluorescence microscopy, allowing visualization without secondary detection reagents.

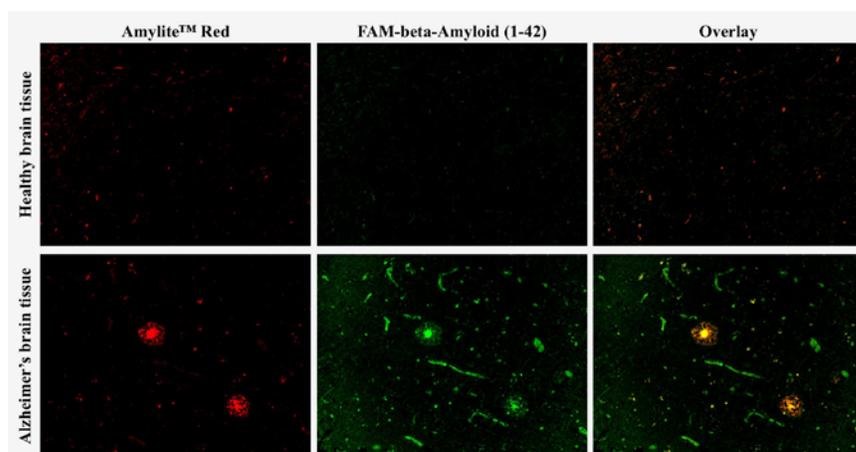
These fluorescent probes support experiments where peptide distribution, intracellular puncta formation, or aggregation-associated localization are key experimental readouts.



**Figure 1. Cellular association of 5-FAM- $\beta$ -Amyloid (1–42).** HeLa cells treated with LPS show increased intracellular punctate fluorescence after incubation with 5-FAM- $\beta$ -Amyloid (1–42) compared to untreated cells. Nuclei counterstained with Nuclear Red. Imaged using FITC and Cy5 filter sets. [Cat. #81111](#)

## AMYLOID PATHOLOGY LABELING IN BRAIN TISSUE

Fluorescent  $\beta$ -Amyloid peptides can be applied to tissue sections to visualize amyloid-associated structures and assess plaque distribution. When combined with complementary stains, these probes support localization and comparative pathology studies.



**Figure 2. Amyloid pathology labeling by FAM- $\beta$ -Amyloid (1–42).** Normal and Alzheimer's brain tissue sections stained with FAM- $\beta$ -Amyloid (1–42) (green) and AmyLite™ Red (red). Alzheimer's tissue shows robust plaque-associated fluorescence with clear co-localization in merged images, whereas normal tissue exhibits minimal signal. [Cat. #81111](#)

## ADVANTAGES OF AAT BIOQUEST $\beta$ -AMYLOID PEPTIDES

- ✓ Predominantly monomeric
- ✓ Reproducible performance
- ✓ Biotin labeling available
- ✓ Defined peptide backbones
- ✓ Full fluorescence spectrum options
- ✓ Compatible with standard imaging platforms

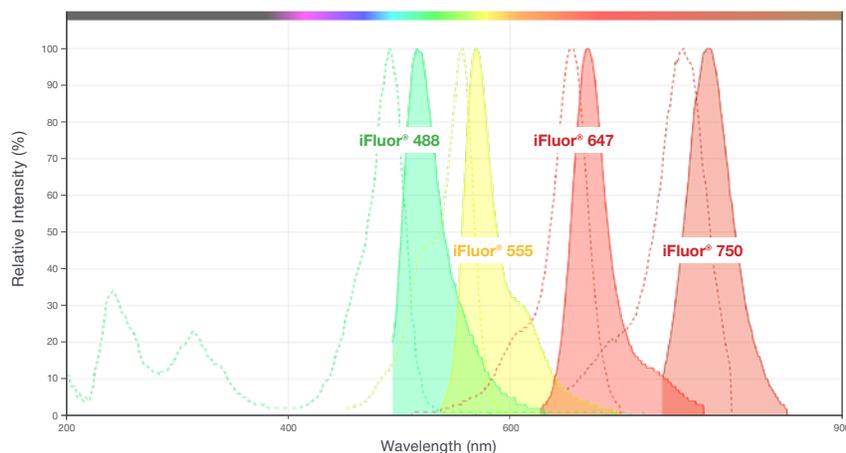


Figure 3. Fluorescence excitation and emission of iFluor® dyes 488, 555, 647, and 750.

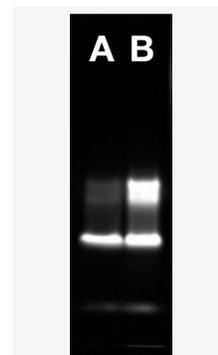


Figure 4. Monomeric profile of FAM- $\beta$ -Amyloid (1-42). SDS-PAGE shows AAT Bioquest's FAM- $\beta$ -Amyloid (1-42) as predominantly monomeric (A) vs. competitor (B). **Cat. #81111**

## $\beta$ -Amyloid Peptide Catalog

Tag / Label	Ex/Em	A $\beta$ (1-28)	A $\beta$ (1-40)	A $\beta$ (1-42)
<b>UNLABELED &amp; BIOTIN</b>				
Unlabeled	—	<a href="#">#81000</a>	<a href="#">#81050</a>	<a href="#">#81100</a>
Biotin	—	<a href="#">#81005</a>	<a href="#">#81055</a>	<a href="#">#81110</a>
<b>FLUORESCCEIN DYES</b>				
5-FAM	493/517	<a href="#">#81006</a>	<a href="#">#81056</a>	<a href="#">#81111</a>
FITC	491/516	<a href="#">#81007</a>	<a href="#">#81057</a>	<a href="#">#81112</a>
FITC-Xtra	491/516	—	—	<a href="#">#81113</a>
<b>ALEXA FLUOR DYES</b>				
Alexa Fluor 488	499/520	<a href="#">#81008</a>	<a href="#">#81058</a>	<a href="#">#81120</a>
Alexa Fluor 555	553/568	<a href="#">#81012</a>	<a href="#">#81062</a>	<a href="#">#81122</a>
Alexa Fluor 647	650/671	<a href="#">#81022</a>	<a href="#">#81072</a>	<a href="#">#81132</a>
Alexa Fluor 750	752/776	<a href="#">#81032</a>	<a href="#">#81082</a>	<a href="#">#81142</a>
<b>CYANINE DYES</b>				
Cy3	555/569	<a href="#">#81011</a>	<a href="#">#81061</a>	<a href="#">#81121</a>
Cy5	651/670	<a href="#">#81021</a>	<a href="#">#81071</a>	<a href="#">#81131</a>
Cy7	756/779	<a href="#">#81031</a>	<a href="#">#81081</a>	<a href="#">#81141</a>
<b>iFLUOR® DYES</b>				
iFluor® 488	491/516	<a href="#">#81010</a>	<a href="#">#81060</a>	<a href="#">#81114</a>
iFluor® 555	557/570	<a href="#">#81020</a>	<a href="#">#81070</a>	<a href="#">#81130</a>
iFluor® 647	656/670	<a href="#">#81030</a>	<a href="#">#81080</a>	<a href="#">#81140</a>
iFluor® 750	757/779	<a href="#">#81033</a>	<a href="#">#81083</a>	<a href="#">#81143</a>



AAT Bioquest, Inc.

aatbio.com | 1-800-990-8053 | info@aatbio.com

For Research Use Only. Not for use in diagnostic or therapeutic procedures. © 2026 AAT Bioquest, Inc. All rights reserved. All trademarks and registered trademarks mentioned herein are the property of their respective owners. All other trademarks and registered trademarks are the property of AAT Bioquest.