

## Abeta 1-5

Cat.No. 218 231; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

### Data Sheet

Reconstitution/Storage	100 µg purified IgG, lyophilized. Azide was added before lyophilization. For reconstitution add 100 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>WB:</b> not tested yet <b>IP:</b> not tested yet <b>ICC:</b> not tested yet <b>IHC:</b> 1 : 100 up to 1 : 500 <b>IHC-P/FFPE:</b> 1 : 100 up to 1 : 200
Clone	80C2
Subtype	IgG2a (κ light chain)
Immunogen	Synthetic peptide corresponding to AA 1 to 5 from human Abeta (UniProt Id: P05067)
Epitop	Epitop: AA 1 to 5 from human Abeta (UniProt Id: P05067)
Reactivity	Reacts with: human (P05067), mouse (P12023). Other species not tested yet.
Specificity	Specific for Abeta 38, 40, 42, 43. No cross-reactivity to N-terminally truncated Abeta species.

#### TO BE USED IN VITRO / FOR RESEARCH ONLY

#### NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Amyloid deposits, also called plaques, of Alzheimer's patients consist of several protein components like the amyloid **beta**-peptides (**Abeta**, **Aβ**) 1-40/42/43 and additional C- and N-terminally modified fragments of Abeta as for instance Abeta pE3 and Abeta pE11.

An additional Abeta variant, **Abeta 38**, is more soluble compared to other Abeta species and is not found in plaques of sporadic Alzheimer's cases. However, it is detected in the blood-vessel walls of a subset of patients with severe cerebral amyloid angiopathy. It especially accumulates in brains of patients carrying mutations in the Abeta coding region.

Cleavage of amyloid precursor protein APP by β- and γ- secretases results in the generation of the Aβ (βA4) peptide, whereas α-secretase cleaves within the Aβ sequence and prevents the formation of Abeta from APP.

### Selected References SYSY Antibodies

The presubiculum is preserved from neurodegenerative changes in Alzheimer's disease.

Murray CE, Gami-Patel P, Gkanatsiou E, Brinkmalm G, Portelius E, Wirths O, Heywood W, Blennow K, Ghiso J, Holton JL, Mills K, et al.

Acta neuropathologica communications (2018) 6(1): 62. **IHC-P; tested species: human**

The metalloprotease ADAMTS4 generates N-truncated Aβ4-x species and marks oligodendrocytes as a source of amyloidogenic peptides in Alzheimer's disease.

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### Selected General References

Circulating immune complexes of Abeta and IgM in plasma of patients with Alzheimer's disease.

Marcello A, Wirths O, Schneider-Axmann T, Degerman-Gunnarsson M, Lannfelt L, Bayer TA  
Journal of neural transmission (Vienna, Austria : 1996) (2009) 116(7): 913-20.

Immune response to Abeta-peptides in peripheral blood from patients with Alzheimer's disease and control subjects.

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Dietary Cu stabilizes brain superoxide dismutase 1 activity and reduces amyloid Abeta production in APP23 transgenic mice.

Bayer TA, Schäfer S, Simons A, Kemmling A, Kamer T, Tepest R, Eckert A, Schüssel K, Eikenberg O, Sturchler-Pierrat C, Abramowski D, et al.  
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Hsiao K, Chapman P, Nilsen S, Eckman C, Harigaya Y, Younkin S, Yang F, Cole G  
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Physical, morphological and functional differences between ph 5.8 and 7.4 aggregates of the Alzheimer's amyloid peptide Abeta.

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Water-soluble Abeta (N-40, N-42) oligomers in normal and Alzheimer disease brains.

Kuo YM, Emmerling MR, Vigo-Pelfrey C, Kasunic TC, Kirkpatrick JB, Murdoch GH, Ball MJ, Roher AE  
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