

## Abeta 38/40/42/43

Cat.No. 218 113; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

### Data Sheet

Reconstitution/Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 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> yes <b>IP:</b> not tested yet <b>ICC:</b> not tested yet <b>IHC:</b> 1 : 100 up to 1 : 500 (see remarks) <b>IHC-P/FFPE:</b> 1 : 1000 (see remarks) <b>ELISA:</b> yes
Immunogen	Synthetic peptide corresponding to AA 13 to 29 from human Abeta (UniProt ID: P05067)
Reactivity	Reacts with: human (P05067), mouse (P12023), dog. Other species not tested yet.
Specificity	Recognizes Abeta 38, 40, 42, 43.
Remarks	<b>IHC:</b> Formic acid treatment required recommended protocol.  <b>IHC-P:</b> Formic acid treatment increases sensitivity and reveals more plaques.

### 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

Detection and Quantification of β-Amyloid, Pyroglutamyl Aβ, and Tau in Aged Canines.  
Schmidt F, Boltze J, Jäger C, Hofmann S, Willems N, Seeger J, Härtig W, Stolzing A  
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Journal of Alzheimer's disease : JAD (2014) 39(4): 871-81. **WB; tested species: human**

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Michalski D, Hofmann S, Pitsch R, Grosche J, Härtig W  
Journal of Alzheimer's disease : JAD (2017) 59(2): 655-674. **IHC; tested species: mouse**

### 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  
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Immune response to Abeta-peptides in peripheral blood from patients with Alzheimer's disease and control subjects.  
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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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Wood SJ, Maleeff B, Hart T, Wetzel R  
Journal of molecular biology (1996) 256(5): 870-7.

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