

Rudolf-Wissell-Str. 28 37079 Göttingen, Germany Phone: +49 551-50556-0 Fax: +49 551-50556-384 E-mail: sales@sysy.com Web: www.sysy.com

Abeta 43

Cat.No. 218 903; 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 $\mu l H_2O$ to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (ECL detection) (see remarks) IP: not tested yet ICC: not tested yet IHC: 1 : 500 (see remarks) IHC-P/FFPE: 1 : 100 (see remarks)
Immunogen	Synthetic peptide corresponding to AA 38 to 43 from human Abeta43 (UniProt Id: P05067)
Reactivity	Reacts with: human (P05067), rat (P08592), mouse (P12023). Other species not tested yet.
Specificity	Specific for Abeta 43
Remarks	WB : Detects purified Abeta 43. Complex samples like brain extracts still have to be tested. Nitrocellulose membrane is recommended for blotting. Boil membrane after blotting for 3min.
	IHC: Formic acid treatment required recommended protocol.
	IHC-P: Formic acid treatment required.

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 **a**myloid **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 **a**myloid **p**recursor **p**rotein APP by β - and γ - secretases results in the generation of the A β (β A4)peptide, whereas α -secretase cleaves within the A β sequence and prevents the formation of Abeta from APP.

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. Baril L, Nicolas L, Croisile B, Crozier P, Hessler C, Sassolas A, McCormick JB, Trannoy E Neuroscience letters (2004) 355(3): 226-30.

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.

Proceedings of the National Academy of Sciences of the United States of America (2003) 100(24): 14187-92.

Correlative memory deficits, Abeta elevation, and amyloid plaques in transgenic mice. Hsiao K, Chapman P, Nilsen S, Eckman C, Harigaya Y, Younkin S, Yang F, Cole G Science (New York, N.Y.) (1996) 274(5284): 99-102.

Physical, morphological and functional differences between ph 5.8 and 7.4 aggregates of the Alzheimer's amyloid peptide Abeta. 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. Kuo YM, Emmerling MR, Vigo-Pelfrey C, Kasunic TC, Kirkpatrick JB, Murdoch GH, Ball MJ, Roher AE The Journal of biological chemistry (1996) 271(8): 4077-81.