

## Anti-Abeta (1-40/42) Monoclonal Antibody from AGRISERA AB

<b>Antigenic Specificity</b>	Abeta (1-40/42)
<b>Clone</b>	4D8
<b>Host Species</b>	Mouse
<b>Reactive Species</b>	human
<b>Isotype</b>	IgM
<b>Format</b>	purified,
<b>Size</b>	50 ug
<b>Applications</b>	<p>ELISA;(ELISA), dot blot (DB). The antibody 4D8 is a conformational specific antibody that specifically can detect oligomeric structures of A<math>\beta</math>(1-40/1-42) while it shows only very low affinity towards mature fibrils and soluble monomers (manuscript in preparation). No reactivity has been noted to the amyloid form of Abeta and to the truncated variants Abeta(1-34) or Abeta (1-28).Abeta 42 was employed from Alexotech AB and used to generate the dot-blot trace. The peptide was dissolved in 10 uM NaOH followed by adjustment of the pH in 1XPBS buffer. Partial aggregation was accomplished through incubation at 37 degrees followed by separation through size exclusion chromatography (Superdex G200 10/30). All incubations during the dot blot assay was performed at room temperature.</p>
<b>Description</b>	<p>Oligomer specific monoclonal antibody targeting amyloid-beta. Immunogen: partly aggregated, recombinant peptide corresponding to the human Abeta (1-40). Amino acid sequence: D-A-E-F-R-H-D-S-G-Y-E-V-H-H-Q-K-L-V-F-F-A-E-D-V-G-S-N-K-G-A-I-I-G-L-M-V-G-G-V-V. Alzheimer's disease is a progressive neurodegenerative disorder characterized by neurofibrillary tangles and deposition of plaques containing the amyloid-<math>\beta</math> (A<math>\beta</math>) peptide. A<math>\beta</math> is derived through proteolytic cleavage of the amyloid precursor protein resulting in various peptide lengths corresponding to 38-43 amino acids. A<math>\beta</math>1-42 is particularly prone to self-aggregate and its aggregates are strongly linked to development of the disease. During in vitro A<math>\beta</math> self-assembly, highly cytotoxic metastable intermediates (oligomers) are generated ranging from 8 kDa to over 100 kDa. Several reports suggest a similar situation in vivo. We have generated a monoclonal antibody, specific for A<math>\beta</math></p>

oligomers, by immunizing mice with partly aggregated A $\beta$ 1-40 peptide. The antibody 4D8 is a conformational specific antibody that specifically can detect oligomeric structures of A $\beta$  (1-42). The reactivity is strongly enhanced within an oligomeric range of approximately 4-15 A $\beta$  monomers while it shows only very low affinity towards mature fibrils and soluble monomers, see figure 1.

**Catalog #**

AS09 432

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