

## Product datasheet for **TA336896**

### Amyloid Precursor Protein (APP) Mouse Monoclonal Antibody [Clone ID: MOAB-2]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	MOAB-2
Applications:	Dot, ELISA, ICC/IF, IHC, Immunoblotting, IP, WB
Recommended Dilution:	Immunohistochemistry Free-Floating, Dot Blot, Immunoblotting, Immunohistochemistry-Paraffin: 1:200-1:1000, Immunohistochemistry: 1:200-1:1000, Immunohistochemistry-Frozen, Immunocytochemistry/ Immunofluorescence: 1:200-1:500, Immunoprecipitation: 1:200-1:1000, Western Blot: 1:1000-1:5000, ELISA: 1:100-1:1000
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Recombinant human beta Amyloid 42
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	amyloid beta precursor protein
Database Link:	<a href="#">NP_958816</a> <a href="#">Entrez Gene 11820 Mouse</a> <a href="#">Entrez Gene 54226 Rat</a> <a href="#">Entrez Gene 351 Human</a> <a href="#">P05067</a>



[View online »](#)

**Background:**

Beta Amyloid, also known as Abeta, is a peptide that varies in length from 39 to 43 amino acids and is processed from the Amyloid precursor protein (APP). Beta Amyloid is known as the main component of amyloid plaques, which are deposits found in the brains of patients with Alzheimer's disease. The form(s) of beta Amyloid associated with the pathology characteristic of Alzheimer's disease still remains unclear. Currently, controversy exists as to the existence of intraneuronal beta Amyloid. Research indicates that intraneuronal beta Amyloid accumulation may be an important proximal neurotoxic event in the pathogenesis of Alzheimer's disease. Many commercially available beta Amyloid antibodies cross react with APP or APP C-terminal fragments. This MOAB-2 antibody is specific for beta Amyloid but not APP. MOAB-2 is a pan-specific beta Amyloid antibody that detects unaggregated, oligomeric and fibrillar forms of beta Amyloid. This is important because beta Amyloid is known to aggregate and form a variety of potentially toxic conformations. MOAB-2 displays strong extracellular beta Amyloid immunoreactivity, and so detects classic plaque pathology. MOAB-2 is selective for Abeta 42 over Abeta 40. This is also an advantage as the 42 amino acid form of beta Amyloid is likely the toxic form. MOAB-2 demonstrates strong intraneuronal immunoreactivity in both human and beta Amyloid-Tg mouse tissue and has the potential to aid future research into the functional importance of intraneuronal beta Amyloid.

**Synonyms:**

AAA; ABETA; ABPP; AD1; APPI; CTFgamma; CVAP; PN-II; PN2

**Note:**

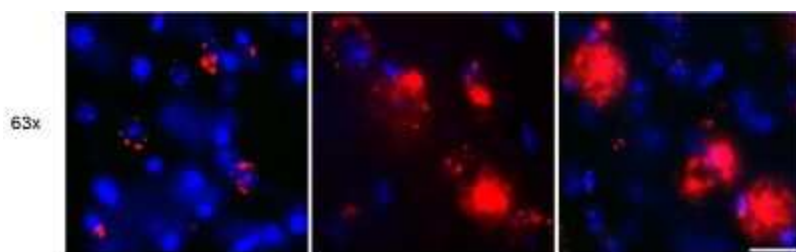
This beta Amyloid Antibody (MOAB-2) is useful for Immunocytochemistry/Immunofluorescence, ELISA, Immunoprecipitation, Western Blot, and Immunohistochemistry on paraffin-embedded sections. In Western blot, a band can be seen at ~4 kDa, representing the beta Amyloid monomer. Larger bands may also be seen representing the unaggregated, oligomeric, and fibrillar forms of beta Amyloid. For higher beta Amyloid yield in WB, please follow the extraction protocol described in Youmans et al, J Neurosci Methods. 2011 March 15; 196(1): 51-59 (PMID: 21219931).

**Protein Families:**

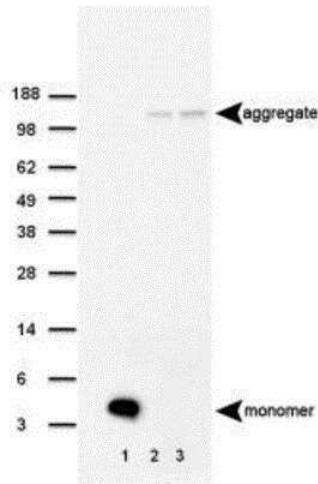
Druggable Genome, Transmembrane

**Protein Pathways:**

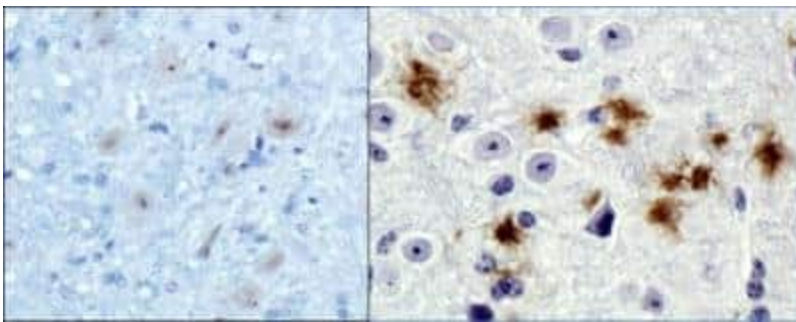
Alzheimer's disease

**Product images:**

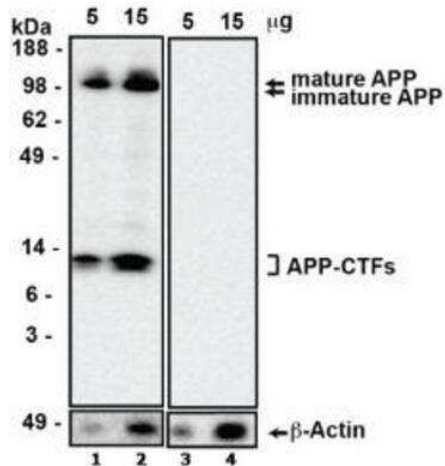
Immunofluorescent detection of beta Amyloid with MOAB-2 in the subiculum of 1-, 2- and 4-month old 5xFAD mice. Scale bar 20 um (from PMID: 22423893).



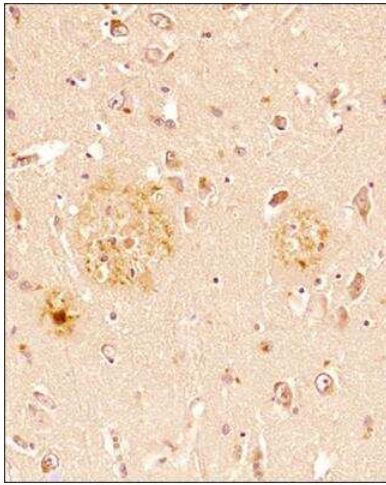
Analysis of beta Amyloid (MOAB-2) antibody in (1) 100 pmole beta Amyloid 42, (2) 5xFAD mouse brain homogenate Repetition 1 and (3) 5xFAD mouse brain homogenate Repetition 2.



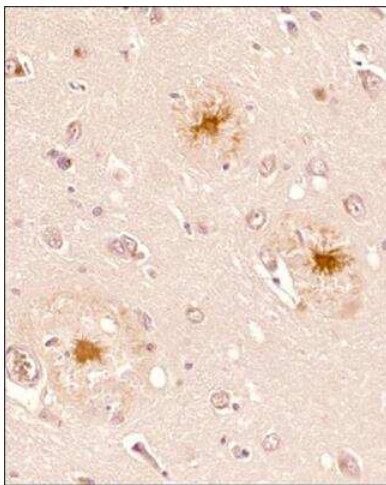
IHC analysis of beta Amyloid on normal mouse brain (left) and 5xFAD mouse brain (right) using DAB with hematoxylin counterstain. The MOAB-2 antibody was used at 1:20 on normal mouse brain and at 1:400 on 5xFAD mouse brain.



Western blot analysis in cell lysates from HEK-APP SWE/BACE1 cells probed with an antibody against the C-terminus of APP (Lanes 1 and 2) and beta Amyloid (MOAB-2, Lanes 3 and 4). Beta Amyloid (MOAB-2) does not detect APP (from PMID: 22423893).



IHC analysis of a formalin fixed paraffin embedded tissue section of human brain (Alzheimers disease, hippocampus) using 1:40 dilution of anti-beta Amyloid antibody (clone MOAB-2). The staining was developed with HRP labeled anti-mouse secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin. This beta Amyloid antibody specifically stained the cells with Abeta 42/ Abeta aggregates while the normal cells were negative for abeta peptide.



IHC analysis of a formalin fixed paraffin embedded tissue section of human brain (Alzheimers disease, hippocampus) using 1:200 dilution of anti-beta Amyloid antibody (clone MOAB-2). The staining was developed with HRP labeled anti-mouse secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin. This beta Amyloid antibody specifically stained the cells with Abeta 42/ Abeta aggregates while the normal cells were negative for abeta peptide.