PRODUCT INFORMATION

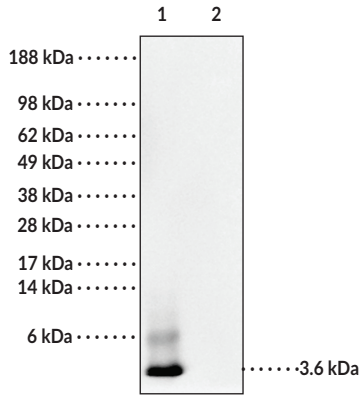
Amyloid-β Monoclonal Antibody (Clone 6C3, MOAB-2)

Item No. 11610

Overview and Properties

Contents:	This vial contains 200 µg of protein G-purified antibody.
Synonym:	Aβ
Immunogen:	Oligomeric form of amyloid-β peptide (Aβ42)
Cross Reactivity:	(+) Amyloid-β; unaggregated, oligomeric, and fibrillar forms of synthetic Aβ42, and unaggregated Aβ40; (-) APP
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	P05067
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol, and 0.02% sodium azide
Clone:	6C3
Host:	Mouse
Isotype:	IgG2b
Applications:	ELISA and western blot (WB); the recommended starting dilution for ELISA is 1:1,000 and 1:5,000 for WB. Other applications were not tested, therefore optimal working dilutions should be determined empirically.

Image



Lane 1: Aβ42 (100 pmol)
Lane 2: 5xFAD TBSX homogenate (25 µg)

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Description

Amyloid plaques composed primarily of the 42 amino acid form of amyloid-β peptide (Aβ42) are a hallmark of Alzheimer's disease (AD). However, the roles of the various amyloid β peptide(s), especially Aβ42, related to the neurotoxicity characteristic of AD remains unclear. A major hindrance to evaluating the role of Aβ in AD pathology has been the availability of anti-Aβ antibodies to selectively detect Aβ *versus* amyloid precursor protein (APP), Aβ40 *versus* Aβ42, and specific conformations of the peptide, particularly oligomeric forms. MOAB-2 (mouse IgG2b) is a pan-specific antibody specific to Aβ (residues 1-4) that differentiates intracellular Aβ from APP. MOAB-2 does not detect APP in cell culture media/lysates or in brain homogenates from transgenic mice expressing 5 familial AD mutation (5xFAD mice). Intraneuronal Aβ was confirmed by co-localization of MOAB-2 immunoreactivity with C-terminal antibodies specific for Aβ40 and Aβ42, and with cathepsin-D, a lysosomal marker. Additionally, MOAB-2 demonstrates strong intraneuronal and extra-cellular immunoreactivity in 5xFAD and 3xTg mouse brain tissues.[1]

Reference

1. Youmans, K.L., Tai, L.M., Stine, W.B., Jr., *et al.* Intraneuronal Aβ detection in 5xFAD mice by a new Aβ-specific antibody. *Mol. Neurodegener.* **7**, 8 (2012).

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