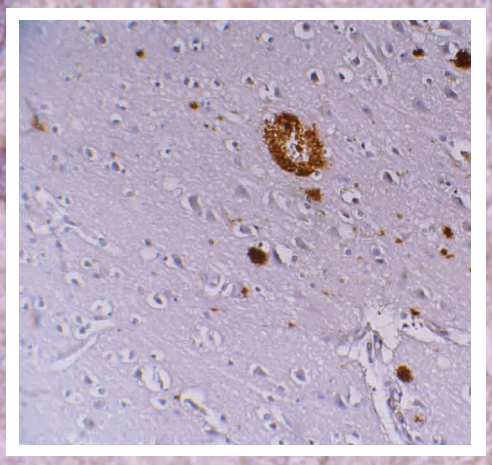
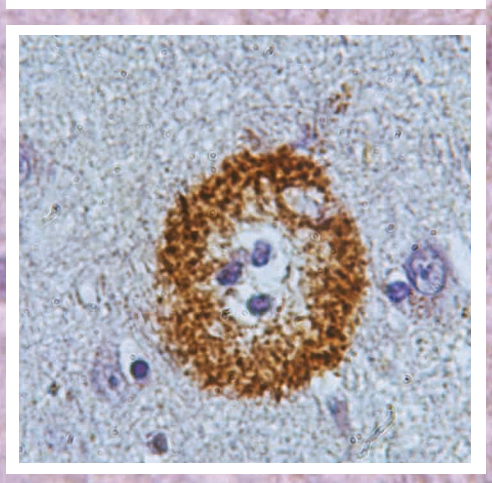
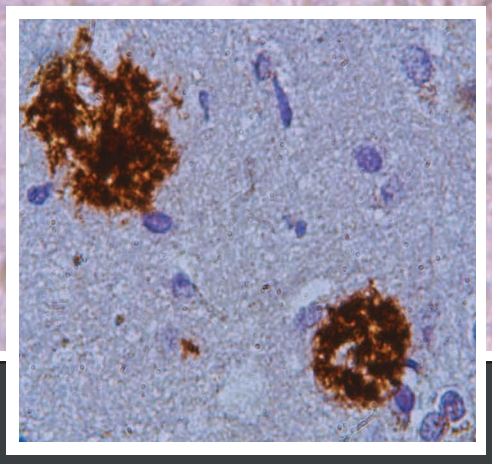
Now have your β Amyloid research make sense!







With the monoclonal

MOAB-2

from biosensis

Description: Mouse Monoclonal antibody to Amyloid beta peptide (A beta 40/42), MOAB-2, purified.
Catalog No: M-1586-100 **Quantity:** 100µg

biosensis

Make sense of your research!

United States **1800 605 5127**
sales_US@biosensis.com
www.biosensis.com

Mouse Monoclonal antibody to Amyloid beta peptide (Aβ 40/42), MOAB-2, purified

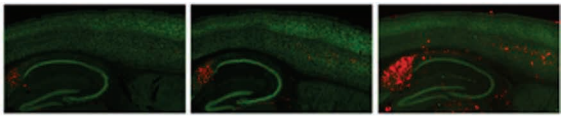
Catalog number: M-1586-100 **Unit size:** 100 µg

Description: The amyloid beta peptide is derived from the cleavage of the Amyloid precursor protein (APP) and varies in length from 39 to 43 amino acids. However, the form(s) of amyloid-beta peptide (Aβ) associated with the pathology characteristic of Alzheimer's disease (AD) remains unclear. In particular, the neurotoxicity of intraneuronal Aβ accumulation is an area of considerable research and controversy principally because antibodies thought to be specific for Aβ have been shown to actually detect intraneuronal APP and not Aβ exclusively.

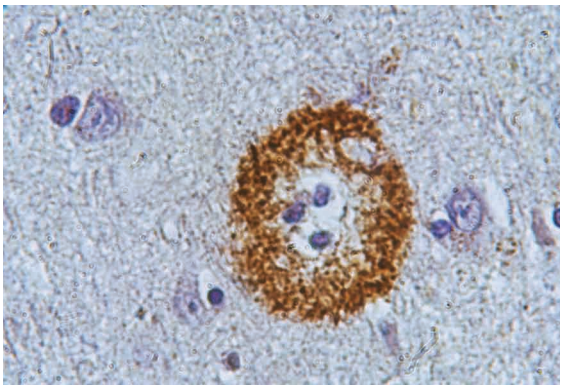
MOAB-2 (mouse IgG2b) is a pan-specific, high-titer antibody to Aβ residues 1-4 as demonstrated by biochemical and immunohistochemical analyses (IHC), and is highly specific just to amyloid beta peptide.

MOAB-2 did not detect APP or APP-CTFs in cell culture media/lysates (HEK-APPSwe or HEK APPSwe/BACE1) or in brain homogenates from transgenic mice expressing 5 familial AD (FAD) mutation (5xFAD mice).

Using IHC on 5xFAD brain tissue, MOAB-2 immunoreactivity co-localized with C-terminal antibodies specific for Aβ 40 and Aβ 42. MOAB-2 did not co-localize with either N- or C-terminal antibodies to APP. In addition, no MOAB-2-immunreactivity was observed in the brains of 5xFAD/BACE-/- mice, although significant amounts of APP were detected by N- and C-terminal antibodies to APP, as well as by 6E10. In both 5xFAD and 3xTg mouse brain tissue, MOAB-2 co-localized with cathepsin-D, a marker for acidic organelles, further evidence for intraneuronal Aβ, distinct from Aβ associated with the cell membrane. MOAB-2 demonstrated strong intra-neuronal and extra-cellular immunoreactivity in 5xFAD and 3xTg mouse brain tissues.



IHC staining of MOAB-2 on 2, 4, 6 month old 5XFAD hippocampus sections showing increasing Aβ staining with MOAB-2 (Red); NeuN staining (Green).



MOAB-2 staining pattern and morphology of senile plaque in Alzheimer's diseased hippocampus. Tissue pretreated with Citrate, pH 6.0. Monoclonal Ab. diluted to 1:100, IHC detection with HRP-DAB. Immunoreactively is seeing here restricted to plaque deposits with no neuronal involvement.

Specificity: MOAB-2 detects preparations enriched in U-, O-, F-Aβ42, and U-Aβ40 by dot-blot, and is thus a pan-specific Aβ antibody. However, MOAB-2 is selective for the more neurotoxic Aβ42 compared to Aβ40. Indeed, MOAB-2 demonstrated a titration against antigen concentration, and detects Aβ40 at 2.5 pmol but U-, O- and FAβb42 at antigen concentrations as low as ~ 0.1 pmol {Youmans. KL et al 2012}. MOAB-2 does not detect APP (Amyloid precursor protein).

Applications: Western Blotting (WB), Immunohistochemistry (IH), Immunohistochemistry/paraffin embedded IH(P), Immunoprecipitation (IP), Immunofluorescence (IF), ELISA.

Biotinylated Version Available!

	Product	Code	Host	Reactivity	Applications
	MOAB-2	M-1586-100	Ms	Human, Rat	IHC, WB, IH(P), (IP), (IF), ELISA
NEW	MOAB-2, Biotinylated	M-1742-50-B	Ms	Human, Rat	IHC, WB, IH(P), (IP), (IF), ELISA

In the United States:
Biosensis International
Ph: 1800 605-5127
sales_US@biosensis.com

biosensis
Make sense of your research!

In Australia:
Biosensis Pty Ltd
Ph: 08 8352 7711
sales@biosensis.com