Datasheet for ABIN5508784

anti-beta Amyloid antibody (C-Term)

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Overview

Quantity:	100 µg
Target:	beta Amyloid (Abeta)
Binding Specificity:	C-Term
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This beta Amyloid antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF)

Product Details

Immunogen:	Synthetic peptide derived from Human Abeta 1-42 protein
Clone:	9E8-1A3
Isotype:	IgG1
Specificity:	A-beta 1-40, A-beta 1-42, A-beta 1-43 and APP
Cross-Reactivity (Details):	Human, mouse, rat (other species not tested)
Purification:	Protein G affinity purification

Target Details

Target:	beta Amyloid (Abeta)
Alternative Name:	Amyloid beta (Abeta Products)

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Target Details

Background:	Amyloid beta (Aβ or Abeta) is a peptide of 36 - 43 amino acids derived from the cleavage of APP (Amyloid Precursor Protein) by β- and γ-secretases. It is involved in Alzheimer´s disease, among other severe neurological disorders. It has been proved that the Aβ could be a crucial target for these important diseases treatment.
Pathways:	Inflammasome

Application Details

Application Notes:	ELISA: 1:40,000, WB: 1:4,000, IF: 1:2,000
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS, pH 7.4
Preservative:	Without preservative
Handling Advice:	Avoid freezing/thaw cycles.
Storage:	-20 °C
Storage Comment:	Store at -20°C to -80°C.

Publications

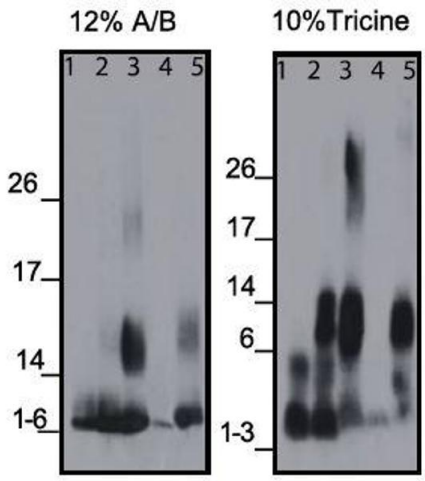
Product cited in:	Ordóñez-Gutiérrez, Posado-Fernández, Ahmadvand, Lettiero, Wu, Antón, Flores, Moghimi, Wandosell: "ImmunoPEGliposome-mediated reduction of blood and brain amyloid levels in a mouse model of Alzheimer's disease is restricted to aged animals." in: **Biomaterials**, Vol. 112, pp. 141-152, (2016) (PubMed). Markoutsa, Papadia, Clemente, Flores, Antimisiaris: "Anti-Aβ-MAb and dually decorated nanoliposomes: effect of Aβ1-42 peptides on interaction with hCMEC/D3 cells." in: **European journal of pharmaceutics and biopharmaceutics : official journal of Arbeitsgemeinschaft für Pharmazeutische Verfahrenstechnik e.V**, Vol. 81, Issue 1, pp. 49-56, (2012) (PubMed). Le Droumaguet, Nicolas, Brambilla, Mura, Maksimenko, De Kimpe, Salvati, Zona, Airoldi, Canovi, Gobbi, Magali, La Ferla, Nicotra, Scheper, Flores, Masserini, Andrieux, Couvreur: "Versatile and

Publications

efficient targeting using a single nanoparticulate platform: application to cancer and Alzheimer's disease." in: **ACS nano**, Vol. 6, Issue 7, pp. 5866-79, (2012) (PubMed).

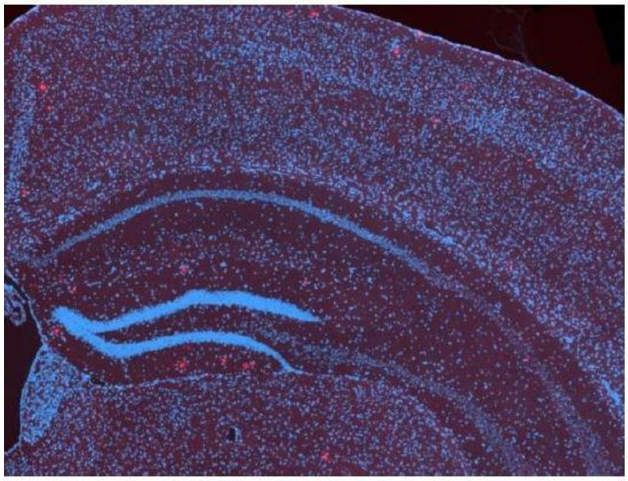
Canovi, Markoutsa, Lazar, Pampalakis, Clemente, Re, Sesana, Masserini, Salmona, Duyckaerts, Flores, Gobbi, Antimisiaris: "The binding affinity of anti-Aβ1-42 MAb-decorated nanoliposomes to Aβ1-42 peptides in vitro and to amyloid deposits in post-mortem tissue." in: **Biomaterials**, Vol. 32, Issue 23, pp. 5489-97, (2011) (PubMed).

Images



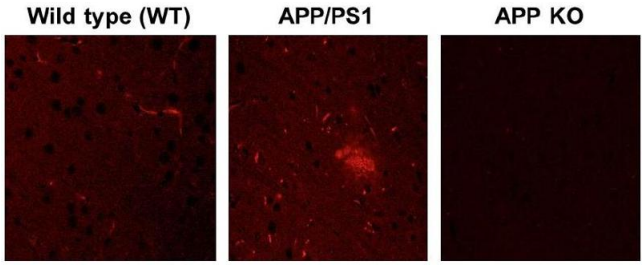
Western Blotting

Image 1. Western blots of the monoclonal antibody binding to different amyloid beta (Abeta) regions of human and mouse protein, using 12% A/B (acrylamide/bisacrylamide) or 10% Tricine matrix. Lanes (1) human Abeta 1-40; (2) human Abeta1-42; (3) human Abeta1-43; (4) mouse Abeta1-40; (5) mouse Abeta1-42.



Immunofluorescence

Image 2. Fluorescent microscopy image (appotome) of 6 months-old APP/PS1 mouse hypocampus and somatosensory cortex. Double staining: in blue, nuclei DAPI staining. In red, Amyloid plaques.



Immunofluorescence

Image 3. Immunofluorescence slices with the anti-amyloid beta antibody from different mouse genotypes. Wild type (WT), APP/PS1 and APP KO. In red, amyloid plaques.

Please check the product details page for more images. Overall 4 images are available for ABIN5508784.

Successfully validated (Immunohistochemistry (IHC))

by Prof. Merighi, Laboratory of Neurobiology, Department of Veterinary Sciences, University of Turin

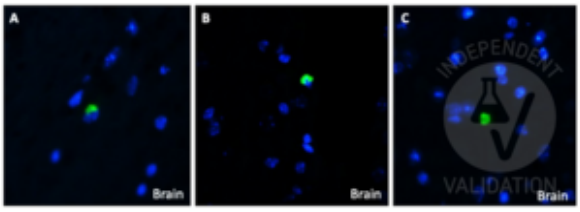
Report Number: 104425

Date: May 12 2022

Target:	beta Amyloid
Lot Number:	190522A
Method validated:	Immunohistochemistry (IHC)
Positive Control:	Adult (24 months) mouse brain 3-month-old Taconic mouse Model 1349 brain fixed in 4% paraformaldehyde
Negative Control:	We incubated slices overnight with the blocking solution only and then processed them with the secondary antibody.
Notes:	The beta amyloid antibody (Amyloid beta) (C-Term) ABIN5508784 works in IHC-P, especially at higher concentrations (1:200 and 1:500), and without the use of any antigen retrieval treatment.
Primary Antibody:	ABIN5508784
Secondary Antibody:	goat anti-rabbit AF488-conjugated antibody (Invitrogen by Thermo Fisher Scientific, A11034, lot 1971418)
Protocol:	• Perfuse mice with paraformaldehyde 4% in 0.1 M phosphate buffer pH 7.4 and post-fix in the same fixative for an additional 2 h at RT. • Wash, dehydrate, and embed samples in paraffin wax. • Wash several times with 0.01 M PBS. • Cut intestines and brain with a microtome into 6µm sections and mount on glass slides. • After paraffin removal, incubate sections for 1 h at RT in PBS containing 1% albumin from chicken egg white (Sigma, A5378) and 0.3% Triton-X-100 (BioRad, 161-0407, lot 00583) to block non-specific binding sites. • Incubate sections with primary anti-beta amyloid (C-Term) (antibodies Online, ABIN5508784, lot 190522A) diluted 1:200, 1:500, 1:1000, and 1:2000 in PBS-BSA-PLL ON at RT. • Wash sections 3x 5 min with 0.01 M PBS. • Incubate sections with secondary goat anti-rabbit AF488-conjugated antibody (Invitrogen by Thermo Fisher Scientific, A11034, lot 1971418) diluted 1:500 in 0.1 M PBS for 1 h at RT. • Wash sections 3x 5 min with 0.01M PBS. • Mount specimens in Fluoroshield (Sigma, F6182, lot MKCB0153V). • Acquire images with a fluorescence microscope and appropriate filter settings for AF488, e.g. Leica DM 6000B fluorescence microscope equipped with a digital camera at 40x

	magnification.
Experimental Notes:	Antigen retrieval treatment was also tested. In this case, sections were processed for microwave antigen retrieval for 10 min(95-100 °C) in 10 mM sodium citrate buffer (pH 6.0). After 20 min of spontaneous cooling, sections were washed twice for 5 min with distilled water and for 5 min with PBS.

Image for Validation report #104425



Validation image no. 1 for anti-Amyloid beta (Abeta) (C-Term) antibody (ABIN5508784)

Staining of beta-amyloid positive cells in the adult mouse brain using ABIN5508784 at 40x magnification.

Validation report #104493 for Immunohistochemistry (IHC)

Successfully validated (Immunohistochemistry (IHC))

by Prof. Merighi, Laboratory of Neurobiology, Department of Veterinary Sciences, University of Turin

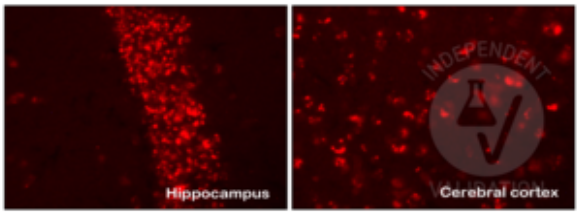
Report Number: 104493

Date: Mar 15 2023

Target:	Abeta
Lot Number:	190522A
Method validated:	Immunohistochemistry (IHC)
Positive Control:	3-month-old Taconic mouse Model 1349 brain fixed in 4% paraformaldehyde
Negative Control:	One control slice for each experimental procedure processed omitting the primary antibody; overnight incubation in diluent solution only.
Notes:	The beta Amyloid antibody (Amyloid beta) (C-Term) ABIN5508784 works in IHC-P, especially at higher concentrations (1:200 and 1:500). Tyramide amplification strongly enhances the positive signal.
Primary Antibody:	ABIN5508784
Secondary Antibody:	poly-HRP conjugated goat anti-rabbit antibody
Protocol:	• Perfuse mice with paraformaldehyde 4% in 0.1 M phosphate buffer pH 7.4 and post-fix in the same fixative for an additional 2 h at RT. • Wash, dehydrate, and embed samples in paraffin wax. • Wash several times with 0.01 M PBS. • Cut intestines and brain with a microtome into 6 µm sections and mount on glass slides. • After paraffin removal, incubate sections for 1 h at RT in PBS containing 1% albumin from chicken egg white (Sigma, A5378) and 0.3% Triton-X-100 (BioRad, 161-0407, lot 00583) to block non-specific binding sites. • Incubate sections with primary anti-beta amyloid (N-Term) (antibodies-online, ABIN5508784, lot 190522A) diluted 1:200, 1:500, 1:1000, and 1:2000 in 0.1 M PBS-BSA-PLL ON at RT. • Wash sections 3x 5 min with 0.01 M PBS. • Incubate sections with poly-HRP conjugated goat anti-rabbit antibody for 1 h at RT. • Wash sections 3x 5 min with 0.01 M PBS. • Incubate sections Tyramide working solution (for 5 sections: 100X Tyramide stock solution 5 µL, 100X H_2O_2 solution 5 µL, and 1X Reaction buffer 500 µL; Thermo Fisher Scientific, B40915, lot 2086865) for 10 min. • Stop the reaction with the Reaction Stop Reagent working solution. • Wash sections 3x 5 min with 0.01M PBS.

- Mount specimens in Fluoroshield (Sigma, F6182, lot MKCB0153V).
- Acquire images with a fluorescence microscope and appropriate filter settings for AF488, e.g. Leica DM 6000B fluorescence microscope equipped with a digital camera at 40x magnification.

Image for Validation report #104493



Validation image no. 1 for anti-Amyloid beta (Abeta) (C-Term) antibody (ABIN5508784)

Staining of beta-amyloid positive neurons in the hippocampus and cerebral cortex of a 3-month-old transgenic mouse using ABIN5508784. Tyramide amplification. No counterstain.