abcam

Product datasheet

Anti-Amyloid Fibril antibody [mOC22] - Conformation-Specific ab205339

Recombinant RabMAb

★★★★★ **1 Abreviews**   **4 References**   4 Images

Overview

Product name	Anti-Amyloid Fibril antibody [mOC22] - Conformation-Specific
Description	Rabbit monoclonal [mOC22] to Amyloid Fibril - Conformation-Specific
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, Dot blot
Species reactivity	**Reacts with:** Human
Immunogen	The details of the immunogen for this antibody are not available.
Positive control	Dot Blot: beta Amyloid (Aß) 1-40 and beta Amyloid (Aß) 1-42. IHC-P: FFPE Hu Brain Alzheimer.
General notes	This antibody was developed as part of a collaboration between Abcam and Professor Charles Glabe, UC Irvine.

ab205339 (mOC22) recognizes a conformation-dependent and aggregation-specific generic fibril epitope that is independent of the peptide sequence. Although it maps to a linear segment of Aß (residues 3-7, EFRHD) it also reacts with alpha synuclein and islet amyloid polypeptide (IAPP) fibrils but not monomers (**Hatami et al 2014**). mOC22 preferentially stains the central core of cored plaques. mOC22 also stains misfolded or aggregated intraneuronal amyloid deposits (**Hatami et. al 2014**). Immunoreactivity on western blots is enhanced by boiling the membrane.

For further information on the immunogen, please refer to **Hatami et al. 2014** and **Kayed et al. 2007**.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information **see here**.

Our RabMAb$^®$ technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb$^®$ patents**.

Properties

Form	Liquid

Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	mOC22
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab205339 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

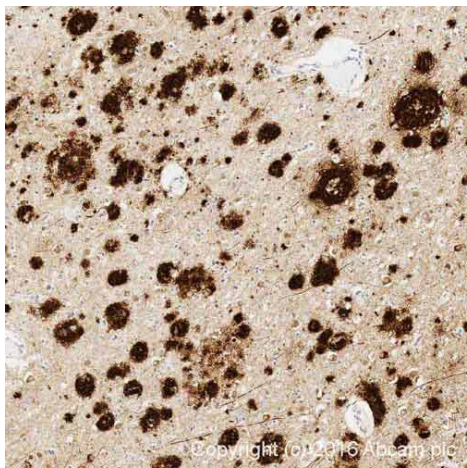| Application	Abreviews	Notes
IHC-P		Use a concentration of 0.1 - 0.5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Dot blot		1/7000.

Target

|	
Cellular localization	Membrane.

Images

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Amyloid Fibril antibody [mOC22] - Conformation-Specific (ab205339)

IHC image of Amyloid Fibril staining in Human Brain Alzheimer formalin fixed paraffin embedded tissue section*, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab205339, 0.1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre
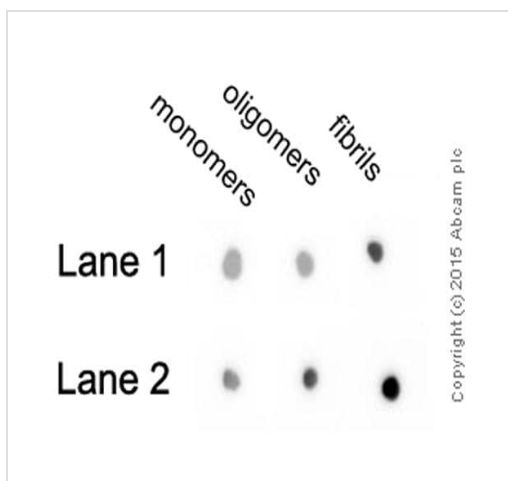
Dot Blot - Anti-Amyloid Fibril antibody [mOC22] - Conformation-Specific (ab205339)

Dot blot analysis of beta Amyloid labeled with ab205339 at 1/7000 dilution.

Lane 1: beta Amyloid (Aβ) 1-40;

Lane 2: beta Amyloid (Aβ) 1-42.

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/30000 was used as secondary antibody.

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: 30 seconds.

Note: Antibody reactivity was assessed using a dot blot, which is a non-quantitative method that maintains the native conformation of beta Amyloid. beta Amyloid 1-40 and 1-42 peptides underwent the following aggregation conditions before being spotted onto a nitrocellulose membrane and detected using ab205339:

Monomers: 0.3 mg of beta Amyloid peptide was dissolved in 30 µl 100 mM NaOH and incubated at room temperature for 10 minutes. It was then diluted with 970 µl of 1% SDS and boiled for five minutes.

Oligomers: 0.3 mg of beta Amyloid peptide was dissolved in 30 µl 100 mM NaOH and incubated at room temperature for 10 minutes. It was then diluted with 970 µl of 10 mM phosphate buffer pH 7.4 containing 0.02% sodium azide and incubated at room temperature for four days.

Fibrils: 0.3 mg of beta Amyloid peptide was dissolved in 1 ml 50% hexafluoroisopropanol (HFIP) with 0.02% sodium azide. It was then stirred constantly for nine days; the first seven with a cap on and the

final two with the cap removed to allow evaporation of the HFIP. Fibrils were then sedimented at 20,000 rpm in a microcentrifuge for 20 minutes and resuspended in 1 ml of PBS + 0.02% sodium azide.

Dot Blot - Anti-Amyloid Fibril antibody [mOC22] - Conformation-Specific (ab205339)
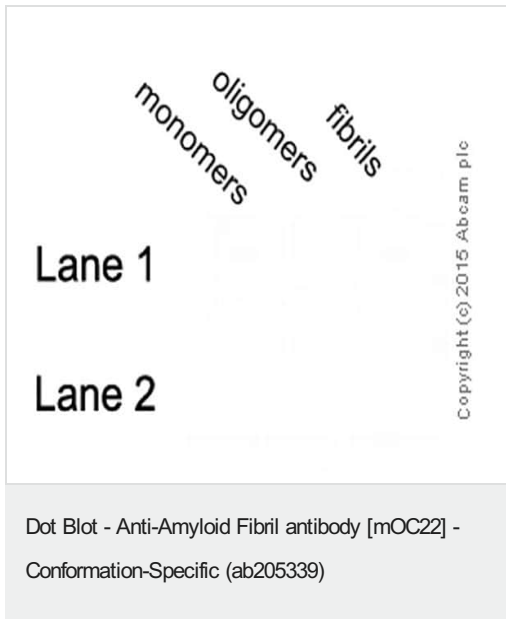
Negative control (secondary ab only) Dot blot analysis of beta Amyloid.

Lane 1: beta Amyloid (Aβ) 1-40;

Lane 2: beta Amyloid (Aβ) 1-42.

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/30000 was used as secondary antibody.

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: 30 seconds.

Anti-Amyloid Fibril antibody [mOC22] - Conformation-Specific (ab205339)

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