

Anti-Beta Amyloid APP Antibody

Catalog Number: A00081-2

About APP

Beta amyloid, often abbreviated as A-beta, is a protein that builds up in the brains of persons with Alzheimer's disease, collecting in clumps called plaques or senile plaques. While some researchers question whether beta amyloid is the cause of the dementia, most agree that it is involved in the disruption of thinking that is a hallmark of the disease. In some cases of familial Alzheimer's disease, mutations in genes for the proteins called the presenilins lead to increased production of amyloid. Researchers have been looking at how presenilin-1 in particular contributes to the excess buildup of beta amyloid. Presenilin-1 apparently acts to increase the activity of gamma-secretase, an enzyme that changes a normal protein (amyloid precursor protein or APP) into beta amyloid itself. Furthermore, presenilin-1 might be gamma-secretase. Anti-Beta Amyloid Antibody is useful for researchers interested in TLR signaling and Alzheimer's research.

Overview

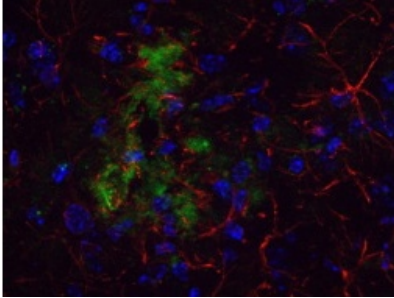
Product Name	Anti-Beta Amyloid APP Antibody
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Beta Amyloid APP Antibody (Catalog # A00081-2). Tested in ELISA, IF, IHC, WB applications. This antibody reacts with Human, Mouse.
Application	ELISA, IF, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	P05067

Technical Details

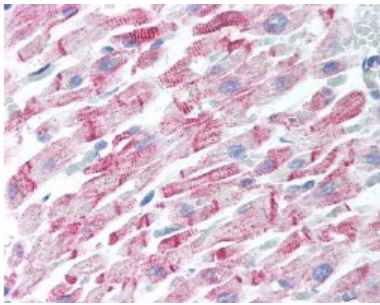
Immunogen	This antibody was affinity purified from whole rabbit serum prepared by repeated immunizations with a synthetic peptide corresponding to an extracellular region of human beta amyloid conjugated to KLH using maleimide.
Predicted Reactive Species	Canine, Monkey
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG

Form	Liquid (sterile filtered)
Concentration	1.1 mg/ml by UV absorbance at 280 nm
Purification	This affinity purified antibody is directed against extracellular region of beta amyloid and is useful in determining its presence in various assays. Polyclonal anti-beta amyloid detects human and mouse beta amyloid. Blast analysis of the sequence of the immunogen shows 100% identity with Human, Guinea Pig, Pig, Cyno Monkey, Dog, Polar Bear, Rabbit, Chimp, Squirrel monkey, and Sheep. Cross-reactivity with beta amyloid from other species is likely but has not been determined.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>ELISA: 1:10,000 - 1:30,000</p> <p>IHC: 1:50-1:200</p> <p>IF Microscopy: 1:50-1:200</p> <p>WB: 1:1,000-1:5000</p>

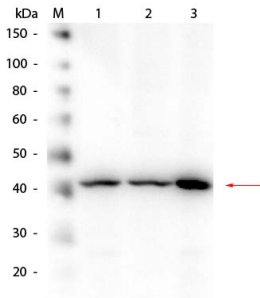
Anti-Beta Amyloid APP Antibody (A00081-2) Images



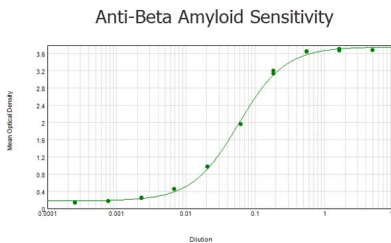
Beta Amyloid was detected in immunohistochemical frozen sections of TG APP23 mouse brain cortex tissues using rabbit anti-Beta Amyloid affinity purified polyclonal antibody (Catalog # A00081-2) at 1:200. Carl Hobbs, King's College London, United Kingdom.



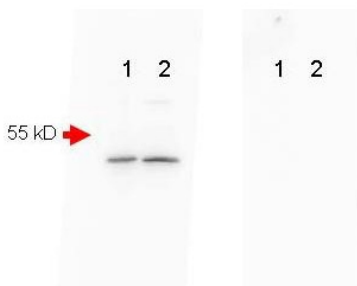
Beta Amyloid was detected in paraffin-embedded sections of human heart tissues using rabbit anti-Beta Amyloid affinity purified polyclonal antibody (Catalog # A00081-2) at 5



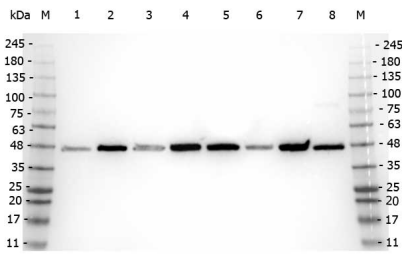
Western blot analysis of Beta Amyloid expression in HEK293 whole cell lysates (lane 1), mouse brain whole cell lysates (lane 2) and A-172 whole cell lysates (lane 3). Beta Amyloid at 40 kDa was detected using rabbit anti-Beta Amyloid affinity purified polyclonal antibody (Catalog # A00081-2) at 1:1,000. The blot was developed using chemiluminescence (ECL) method (Catalog # EK1002).



ELISA results of purified Rabbit anti-Beta Amyloid Antibody tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1



Western blot analysis of Beta Amyloid expression in mouse brain extract (lane 1) and mouse spinal cord (lane 2). A 40-50 kDa band consistent with a higher MW precursor form of beta amyloid was detected using rabbit anti-Beta Amyloid affinity purified polyclonal antibody (Catalog # A00081-2) at 1:1000. A secondary Ab only control (Shown right) showed no detectable signal.



Western blot analysis of Beta Amyloid expression in HEK293 whole cell lysates (lane 1), HeLa Lysate whole cell lysates (lane 2), MCF-7 cell lysates (lane 3), Jurkat cell lysates (lane 4), A431 cell lysates (lane 5), LNCaP cell lysates (lane 6), A-172 cell lysates (lane 7) and NIH/3T3 cell lysates (lane 8). Beta Amyloid at 40 kDa was detected using rabbit anti-Beta Amyloid affinity purified polyclonal antibody (Catalog # A00081-2) at 1:5,000. The blot was developed using chemiluminescence (ECL) method (Catalog # EK1002).

3 Publications Citing This Product

1. PubMed ID: -, Ou Qiao,Xinyu Zhang,Yi Zhang et al.Cerebralcare Granule® enhances memantine hydrochloride efficacy in APP/PS1 mice by ameliorating amyloid pathology and cognitive functions,08 April 2021,PREPRINT (Version 1) available at Research Square [https://doi.org/10.21203/rs.3.rs-366097/v1]
2. PubMed ID: 26459718, Anti-autophagic and anti-apoptotic effects of memantine in a SH-SY5Y cell model of Alzheimer's disease via mammalian target of rapamycin-dependent and -independent pathways
3. PubMed ID: 29163135, Kuang X, Zhou HJ, Thorne AH, Chen XN, Li LJ, Du JR. Front Aging Neurosci. 2017 Nov 2;9:353. doi: 10.3389/fnagi.2017.00353. eCollection 2017. Neuroprotective Effect of Ligustilide through Induction of alpha-Secretase Processing of Both APP and Klotho i...

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