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Anti-FE65 Picoband Antibody

Catalog # ABO12370

Specification

Anti-FE65 Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	O00213
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Amyloid beta A4 precursor protein-binding family B member 1(APBB1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-FE65 Picoband Antibody - Additional Information

Gene ID 322

Other Names
Amyloid beta A4 precursor protein-binding family B member 1, Protein Fe65, APBB1, FE65, RIR

Calculated MW
77244 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Cell membrane. Cytoplasm. Nucleus. Cell projection, growth cone . Nucleus speckle. Colocalizes with TSHZ3 in axonal growth cone (By similarity). In normal conditions, it mainly localizes to the cytoplasm, while a small fraction is tethered to the cell membrane via its interaction with APP. Following exposure to DNA damaging agents, it is released from cell membrane and translocates to the nucleus. Nuclear translocation is under the regulation of APP. Colocalizes with TSHZ3 in the nucleus. Colocalizes with NEK6 at the nuclear speckles. Phosphorylation at Ser-610 by SGK1 promotes its localization to the nucleus (By similarity). .

Tissue Specificity
Highly expressed in brain; strongly reduced in post-mortem elderly subjects with Alzheimer disease. .

Protein Name
Amyloid beta A4 precursor protein-binding family B member 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human FE65 (21-56aa ALSLPLPLHAAHNQLLNAKLQATAVGPKDLRSAMGE), different from the related mouse sequence by two amino acids, and from the related rat sequence by three amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-FE65 Picoband Antibody - Protein Information

Name APBB1 (HGNC:581)

Function
Transcription coregulator that can have both coactivator and corepressor functions (PubMed:15031292, PubMed:18468999, PubMed:18922798, PubMed:25342469, PubMed:33938178). Adapter protein that forms a transcriptionally active complex with the gamma-secretase- derived amyloid precursor protein (APP) intracellular domain (PubMed:15031292, PubMed:18468999, PubMed:18922798, PubMed:25342469). Plays a central role in the response to DNA damage by translocating to the nucleus and inducing apoptosis (PubMed:15031292, PubMed:18468999, PubMed:18922798, PubMed:25342469). May act by specifically recognizing and binding histone H2AX phosphorylated on 'Tyr-142' (H2AXY142ph) at double-strand breaks (DSBs), recruiting other pro-apoptosis factors such as MAPK8/JNK1 (PubMed:19234442). Required for histone H4 acetylation at double-strand breaks (DSBs) (PubMed:19234442). Its ability to specifically bind modified histones and chromatin modifying enzymes such as KAT5/TIP60, probably explains its transcription activation activity (PubMed:33938178). Functions in association with TSHZ3, SET and HDAC factors as a transcriptional repressor, that inhibits the expression of CASP4 (PubMed:19343227). Associates with chromatin in a region surrounding the CASP4 transcriptional start site(s) (PubMed:19343227). Involved in hippocampal neurite branching and neuromuscular junction formation, as a result plays a role in spatial memory functioning (By similarity). Plays a role in the maintenance of lens transparency (By similarity). May play a role in muscle cell strength

(By similarity). Acts as a molecular adapter that functions in neurite outgrowth by activating the RAC1-ARF6 axis upon insulin treatment (PubMed:36250347).

Cellular Location
Cell membrane. Cytoplasm. Nucleus. Cell projection, growth cone {ECO:0000250|UniProtKB:P46933}. Nucleus speckle. Note=Colocalizes with TSHZ3 in axonal growth cone (By similarity). Colocalizes with TSHZ3 in the nucleus (PubMed:19343227). In normal conditions, it mainly localizes to the cytoplasm, while a small fraction is tethered to the cell membrane via its interaction with APP (PubMed:18468999). Following exposure to DNA damaging agents, it is released from cell membrane and translocates to the nucleus (PubMed:18468999). Nuclear translocation is under the regulation of APP (PubMed:18468999). Colocalizes with NEK6 at the nuclear speckles (PubMed:17512906). Phosphorylation at Ser-610 by SGK1 promotes its localization to the nucleus (By similarity) {ECO:0000250|UniProtKB:P46933, ECO:0000269|PubMed:17512906, ECO:0000269|PubMed:18468999, ECO:0000269|PubMed:19343227}

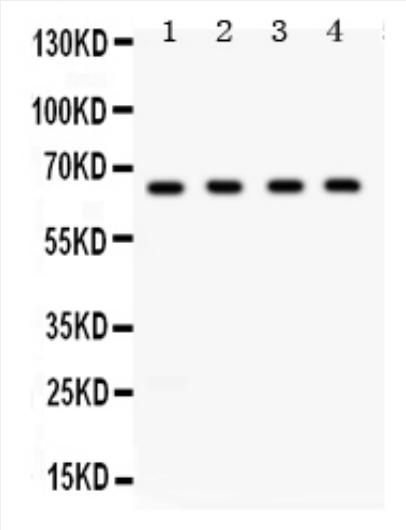
Tissue Location
Highly expressed in brain; strongly reduced in post-mortem elderly subjects with Alzheimer disease

Anti-FE65 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

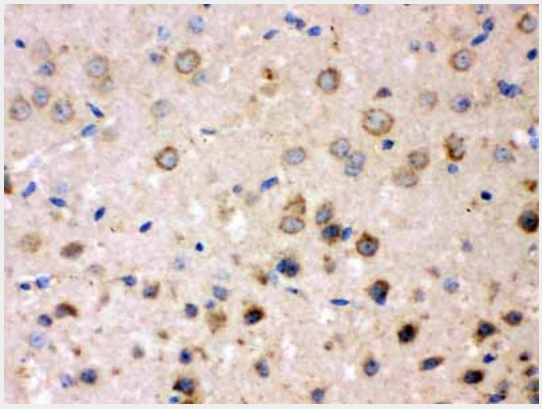
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-FE65 Picoband Antibody - Images

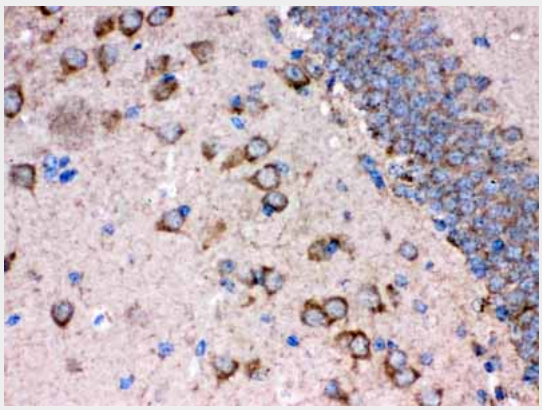


Anti- FE65 Picoband antibody, ABO12370, Western blottingAll lanes: Anti FE65 (ABO12370) at

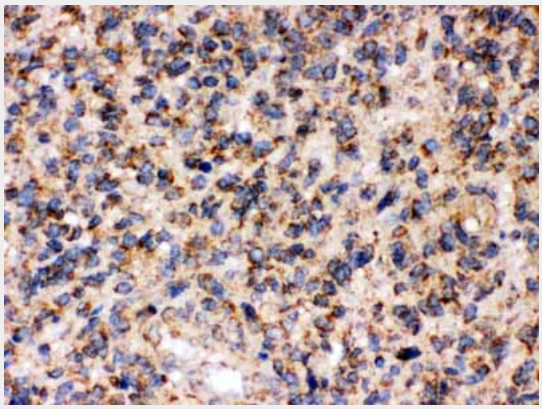
0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Mouse Brain Tissue Lysate at 50ugLane 3: HELA Whole Cell Lysate at 40ugLane 4: U87 Whole Cell Lysate at 40ugPredicted bind size: 65KDObserved bind size: 65KD



Anti- FE65 Picoband antibody, ABO12370, IHC(P)IHC(P): Mouse Brain Tissue



Anti- FE65 Picoband antibody, ABO12370, IHC(P)IHC(P): Rat Brain Tissue



Anti- FE65 Picoband antibody, ABO12370, IHC(P)IHC(P): Human Glioma Tissue

Anti-FE65 Picoband Antibody - Background

APBB1 is also known as RIR or FE65. The protein encoded by this gene is a member of the Fe65 protein family. It is an adaptor protein localized in the nucleus. It interacts with the Alzheimer's disease amyloid precursor protein (APP), transcription factor CP2/LSF/LBP1 and the low-density lipoprotein receptor-related protein. APP functions as a cytosolic anchoring site that can prevent the gene product's nuclear translocation. This encoded protein could play an important role in the pathogenesis of Alzheimer's disease. It is thought to regulate transcription. Also it is observed to

block cell cycle progression by downregulating thymidylate synthase expression. Multiple alternatively spliced transcript variants encoding different isoforms have been described for this gene.