



Rabbit Anti-phospho-APBB1 (Ser175) antibody

SL5165R

Product Name:	phospho-APBB1 (Ser175)
Chinese Name:	磷酸化铁蛋白Fe65抗体
Alias:	Adaptor protein FE65a2; Amyloid beta (A4) precursor protein binding family B member 1; Amyloid beta A4 precursor protein binding family B; Amyloid beta A4 precursor protein binding family B member 1; Amyloid beta precursor protein binding family B member 1; APBB 1; APBB1; FE 65; Fe65 protein; MGC 9072; MGC9072; Protein Fe65; RIR; Stat like protein; Fe-65 Protein; APBB1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	77kDa
Cellular localization:	The nucleuscytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human APBB1 around the phosphorylation site of Ser175:LS(p-S)PP
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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.

Function:

Transcription coregulator that can have both coactivator and corepressor functions. Adapter protein that forms a transcriptionally active complex with the gamma-secretase-derived amyloid precursor protein (APP) intracellular domain. Plays a central role in the response to DNA damage by translocating to the nucleus and inducing apoptosis. May act by specifically recognizing and binding histone H2AX phosphorylated on 'Tyr-142' (H2AX^{Y142ph}) at double-strand breaks (DSBs), recruiting other pro-apoptosis factors such as MAPK8/JNK1. Required for histone H4 acetylation at double-strand breaks (DSBs). Its ability to specifically bind modified histones and chromatin modifying enzymes such as KAT5/TIP60, probably explains its transcription activation activity. Function in association with TSHZ3, SET and HDAC factors as a transcriptional repressor, that inhibits the expression of CASP4. Associates with chromatin in a region surrounding the CASP4 transcriptional start site(s).

Subunit:

Component of a complex, at least composed of APBB1, RASD1/DEXRAS1 and APP. Interacts (via PID domain 2) with APP (with the intracellular domain of the beta-amyloid precursor protein). Interacts (via PID domain 2) with RASD1/DEXRAS1; impairs the transcription activation activity. Interacts (via PID domain 1) with KAT5/TIP60. Interacts (via the WW domain) with the proline-rich region of APBB1IP. Interacts with TSHZ1 and TSHZ2 (By similarity). Interacts (via the WW domain) with histone H2AX (when phosphorylated on 'Tyr-142') and the proline-rich region of ENAH. Interacts with MAPK8. Interacts (via PID domain 1) with TSHZ3 (via homeobox domain). Interacts with SET. Found in a trimeric complex with HDAC1 and TSHZ3; the interaction between HDAC1 and APBB1 is mediated by TSHZ3. Interacts (via WWW domain) with NEK6. Interacts (via WWW domain) with ABL1.

Subcellular Location:

Cell membrane. Cytoplasm. Nucleus. Cell projection, growth cone (By similarity). Nucleus speckle. Note=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. Co-localizes with NEK6 at the nuclear speckles. Phosphorylation at Ser-610 by SGK1 promotes its localization to the nucleus

Tissue Specificity:

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

Post-translational modifications:

Phosphorylation at Ser-610 by SGK1 promotes its localization to the nucleus (By similarity). Phosphorylated following nuclear translocation. Phosphorylation at Tyr-547 by ABL1 enhances transcriptional activation activity and reduces the affinity for RASD1/DEXRAS1.

Similarity:

Contains 2 PID domains.
Contains 1 WW domain.

SWISS:

O00213

Gene ID:

322

Database links:

[Entrez Gene: 322](#) Human

[Entrez Gene: 11785](#) Mouse

[Entrez Gene: 29722](#) Rat

[Omim: 602709](#) Human

[SwissProt: O00213](#) Human

[SwissProt: Q9QXJ1](#) Mouse

[SwissProt: P46933](#) Rat

[Unigene: 372840](#) Human

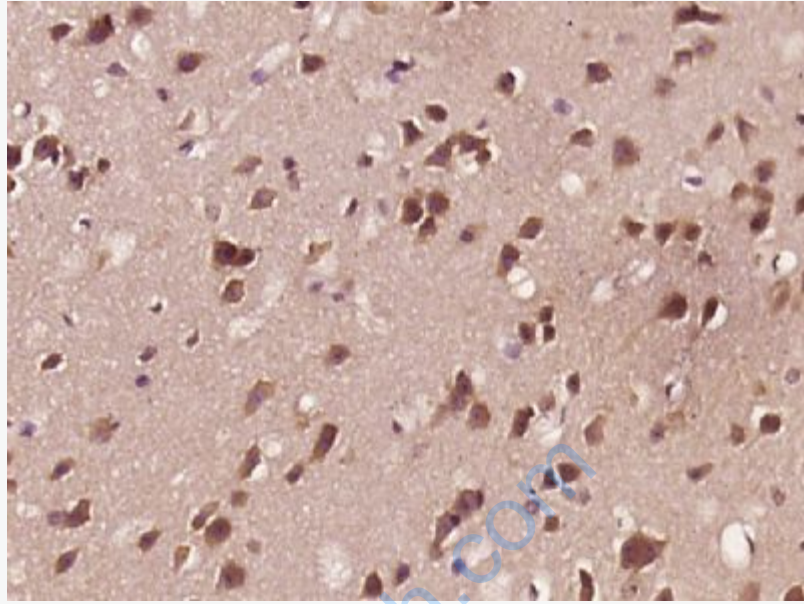
[Unigene: 38469](#) Mouse

[Unigene: 19953](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Fe65 蛋白(又称作Amyloid beta A4 precursor protein-binding family B member 1)可能与细胞内的APP结构域结合调节内源性的APP。



Picture:

Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (APBB 1) Polyclonal Antibody, Unconjugated (SL5165R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.