

Fe65L (Y-14): sc-104237

BACKGROUND

Fe65L (Fe65-like protein), also known as APBB2 (amyloid β (A4) precursor protein-binding, family B, member 2), is a 758 amino acid protein that contains one WW domain and 2 PID domains. Binding to the intracellular domain of the β -amyloid precursor protein, Fe65L is thought to modulate the internalization and, therefore, the accessibility and function of β -amyloid. Via its ability to control the intracellular accumulation of β -amyloid, Fe65L is thought to play a role in the pathogenesis of Alzheimer's disease. Multiple isoforms of Fe65L exist due to alternative splicing events. The gene encoding Fe65L maps to human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

- Guenette, S.Y., et al. 1996. Association of a novel human FE65-like protein with the cytoplasmic domain of the β -amyloid precursor protein. *Proc. Natl. Acad. Sci. USA* 93: 10832-10837.
- Blanco, G., et al. 1998. Mapping of the human and murine X11-like genes (APBA2 and apba2), the murine Fe65 gene (Apbb1), and the human Fe65-like gene (APBB2): genes encoding phosphotyrosine-binding domain proteins that interact with the Alzheimer's disease amyloid precursor protein. *Mamm. Genome* 9: 473-475.
- Bruni, P., et al. 2002. Fe65, a ligand of the Alzheimer's β -amyloid precursor protein, blocks cell cycle progression by down-regulating thymidylate synthase expression. *J. Biol. Chem.* 277: 35481-35488.
- Chang, Y., et al. 2003. Generation of the β -amyloid peptide and the amyloid precursor protein C-terminal fragment γ are potentiated by FE65L1. *J. Biol. Chem.* 278: 51100-51107.
- Lange, A., et al. 2005. The apoptosis inhibitory domain of FE65-like protein 1 regulates both apoptotic and caspase-independent programmed cell death mediated by tumor necrosis factor. *Biochem. Biophys. Res. Commun.* 335: 575-583.
- Li, Y., et al. 2005. Genetic association of the APP binding protein 2 gene (APBB2) with late onset Alzheimer disease. *Hum. Mutat.* 25: 270-277.

CHROMOSOMAL LOCATION

Genetic locus: APBB2 (human) mapping to 4p14; Apbb2 (mouse) mapping to 5 C3.1.

SOURCE

Fe65L (Y-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Fe65L of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-104237 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Fe65L (Y-14) is recommended for detection of Fe65L of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Fe65L (Y-14) is also recommended for detection of Fe65L in additional species, including bovine and avian.

Suitable for use as control antibody for Fe65L siRNA (h): sc-89117, Fe65L siRNA (m): sc-105352, Fe65L shRNA Plasmid (h): sc-89117-SH, Fe65L shRNA Plasmid (m): sc-105352-SH, Fe65L shRNA (h) Lentiviral Particles: sc-89117-V and Fe65L shRNA (m) Lentiviral Particles: sc-105352-V.

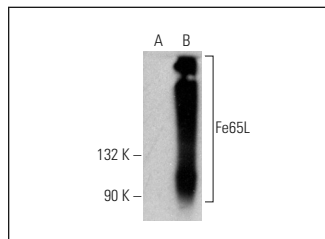
Molecular Weight of Fe65L: 83 kDa.

Positive Controls: Fe65L (h3): 293T Lysate: sc-114061.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Fe65L (Y-14): sc-104237. Western blot analysis of Fe65L expression in non-transfected: sc-117752 (A) and human Fe65L transfected: sc-114061 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.