## SANTA CRUZ BIOTECHNOLOGY, INC.

# Fe65L2 (T-15): sc-107217



#### BACKGROUND

Fe65L2 (FE65-like protein 2), also known as SRA or APBB3 (amyloid  $\beta$  (A4) precursor protein-binding, family B, member 3), is a 486 amino acid protein that contains one WW domain and 2 PID domains. Binding to the intracellular domain of the  $\beta$ -amyloid precursor protein, Fe65L2 is thought to modulate the internalization and, therefore, the accessibility and function of  $\beta$ -amyloid. Via its ability to control the intracellular accumulation of  $\beta$ -amyloid, Fe65L2 is thought to play a role in the pathogenesis of Alzheimer's disease. Fe65L2 exists as four alternatively spliced isoforms designated isoform I, isoform II, isoform III and isoform IV. Fe65L2 interacts with amyloid-like protein and is encoded by a gene located on human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

## REFERENCES

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- 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 Fe65like gene (APBB2): genes encoding phosphotyrosine-binding domain proteins that interact with the Alzheimer's disease amyloid precursor protein. Mamm. Genome 9: 473-475.
- Tanahashi, H. and Tabira, T. 1999. Genome structure and chromosomal mapping of the gene for Fe65L2 interacting with Alzheimer's β-amyloid precursor protein. Biochem. Biophys. Res. Commun. 258: 385-389.
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- Tanahashi, H., et al. 2002. c954C → T polymorphism in the Fe65L2 gene is associated with early-onset Alzheimer's disease. Ann. Neurol. 52: 691-693.
- 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.
- 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.

#### CHROMOSOMAL LOCATION

Genetic locus: APBB3 (human) mapping to 5q31.3; Apbb3 (mouse) mapping to 18 B2.

#### SOURCE

Fe65L2 (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Fe65L2 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107217 P, (100  $\mu g$  peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

Fe65L2 (T-15) is recommended for detection of Fe65L2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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); non cross-reactive with family members Fe65L or APBB1IP.

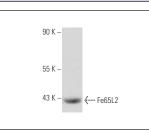
Fe65L2 (T-15) is also recommended for detection of Fe65L2 in additional species, including equine, canine, bovine and porcine.

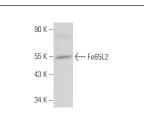
Suitable for use as control antibody for Fe65L2 siRNA (h): sc-91884, Fe65L2 siRNA (m): sc-145156, Fe65L2 shRNA Plasmid (h): sc-91884-SH, Fe65L2 shRNA Plasmid (m): sc-145156-SH, Fe65L2 shRNA (h) Lentiviral Particles: sc-91884-V and Fe65L2 shRNA (m) Lentiviral Particles: sc-145156-V.

#### Molecular Weight of Fe65L2: 50 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or HEK293 whole cell lysate: sc-45136.

#### DATA





Fe65L2 (T-15): sc-107217. Western blot analysis of

Fe65L2 expression in HEK293 whole cell lysate.

Fe65L2 (T-15): sc-107217. Western blot analysis of Fe65L2 expression in IMR-32 whole cell lysate.

## STORAGE

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

#### **RESEARCH USE**

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

#### PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.