SANTA CRUZ BIOTECHNOLOGY, INC.

X11β (H-225): sc-28968

BACKGROUND

Amyloid β precursor protein (β APP) is a major constituent of the amyloid deposits in patients with Alzheimer's disease. The amyloid β precursor is known to interact with several proteins, including the G_0 heterotrimetric protein, APP-BP1 and X11. The neuronal, transmembrane protein X11 is known to bind to the amyloid β precurser protein via a phosphotyrosine binding (PTB) domain, reducing the secretion of cellular β APP and slowing β APP processing pathways. X11 binds specifically to the YENPTY motif, which is involved in the internalization of β APP. Multiple splice varitents of X11 have been identified, including X11 α, β and γ (also known as Mint 1, 2 and 3, respectively).

REFERENCES

1. Borg, J.P., et al. 1996. The phosphotyrosine interaction domains of X11 and FE65 bind to distinct sites on the YENPTY motif of amyloid precursor protein. Mol. Cell. Biol. 16: 6229-6241.
2. Okamoto, M., et al. 1997. Mints, Munc18-interacting proteins in synaptic vesicle exocytosis. J. Biol. Chem. 272: 31459-31464.
3. Zhang, Z., et al. 1997. Sequence-specific recognition of the internalization motif of the Alzheimer's amyloid precursor protein by the X11 PTB domain. EMBO J. 16: 6141-6150.
4. Russo, T., et al. 1998. Fe65 and the protein network centered around the cytosolic domain of the Alzheimer's β-amyloid precursor protein. FEBS Lett. 434: 1-7.
5. Borg, J.P., et al. 1998. The X11α protein slows cellular amyloid precursor protein processing and reduces Aβ40 and Aβ42 secretion. J. Biol. Chem. 273: 14761-14766.
6. Sastre, M., et al. 1998. X11 interaction with β-amyloid precursor protein modulates its cellular stabilization and reduces amyloid β-protein secretion. J. Biol. Chem. 273: 22351-22357.

CHROMOSOMAL LOCATION

Genetic locus: APBA2 (human) mapping to 15q11-q12; Apba2 (mouse) mapping to 7 C.

SOURCE

X11β (H-225) is a rabbit polyclonal antibody raised against amino acids 1-225 mapping at the N-terminus of x11β of human origin.

PRODUCT

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

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.

APPLICATIONS

X11β (H-225) is recommended for detection of x11β of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for X11β siRNA (h): sc-36849.

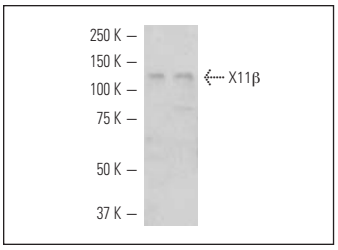
Molecular Weight of X11β: 135 kDa.

Positive Controls: H4 cell lysate: sc-2408 or IMR-32 cell lysate: sc-2409.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



X11β (H-225): sc-28968. Western blot analysis of X11β expression in H4 (**A**) and IMR-32 (**B**) whole cell lysates.

PROTOCOLS

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