



β -Amyloid (16E9): sc-80465

BACKGROUND

Proteolytic cleavage of the Amyloid protein precursor (APP) gives rise to the β -Amyloid and Amyloid A4 proteins, which are present in human platelets. Amyloid deposition is associated with type II diabetes, Down syndrome and a variety of neurological disorders, including Alzheimer's disease. The Amyloid precursor protein (APP) undergoes alternative splicing, resulting in several isoforms. Proteolytic cleavage of APP leads to the formation of the Amyloid β /A4 Amyloid protein. This protein is involved in the formation of neurofibrillary tangles and plaques that characterize the senile plaques of Alzheimer's patients. APLP1 (Amyloid precursor-like protein 1) and APLP2 are structurally similar to APP. Human APLP2 is a membrane-bound sperm protein that contains a region highly homologous to the transmembrane-cytoplasmic domains of APP found in brain plaques of Alzheimer's disease patients.

REFERENCES

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7. Tamboli, I.Y., Prager, K., Barth, E., Heneka, M., Sandhoff, K. and Walter, J. 2005. Inhibition of glycosphingolipid biosynthesis reduces secretion of the β -Amyloid precursor protein and Amyloid β -peptide. *J. Biol. Chem.* 280: 28110-28117.

CHROMOSOMAL LOCATION

Genetic locus: APP (human) mapping to 21q21.3.

SOURCE

β -Amyloid (16E9) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to amino acids 5-16 of β -Amyloid of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

β -Amyloid (16E9) is recommended for detection of amino acids 10-16 of β -Amyloid of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for APP siRNA (h): sc-29677, APP shRNA Plasmid (h): sc-29677-SH and APP shRNA (h) Lentiviral Particles: sc-29677-V.

Molecular Weight of β -Amyloid: 4-46 kDa (various forms).

Molecular Weight of Amyloid A4: 100-125 kDa (various forms).

SELECT PRODUCT CITATIONS

1. Wang, X.P., Zhang, J.H., Wang, Y.J., Feng, Y., Zhang, X., Sun, X.X., Li, J.L., Du, X.T., Lambert, M.P., Yang, S.G., Zhao, M., Klein, W.L. and Liu, R.T. 2009. Conformation-dependent single-chain variable fragment antibodies specifically recognize β -Amyloid oligomers. *FEBS Lett.* 583: 579-584.

STORAGE

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

PROTOCOLS

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