

ACYP2 (FL-99): sc-28214

BACKGROUND

The formation of stable highly organized protein aggregates, known as Amyloid fibrils, is associated with several debilitating human diseases, including Alzheimer's disease, Parkinson's disease and Creutzfeldt-Jakob disease. In each of these conditions, a peptide or protein that is normally soluble accumulates into insoluble fibrils. Muscle acylphosphatase (AcP) has emerged as a significant model system to study protein misfolding and aggregation. It is particularly suitable for these studies because muscle AcP is a small, simple protein of only 98 amino acids consisting of a 5-stranded antiparallel β -sheet and 2 parallel α -helices. Mutations in the muscle AcP between residues 16-31 and 87-98, which includes its phosphate binding site at Arg-23, significantly increases the rate of aggregation. These mutations correlate with changes in the hydrophobicity of AcP and a conversion of the α -helical structures to β -sheets. Therefore, a reduction in the net charge of a protein may be a key determinant in some forms of protein deposition diseases.

REFERENCES

1. Serpell, L.C., et al. 1997. The molecular basis of amyloidosis. *Cell. Mol. Life Sci.* 53: 871-887.
2. Chiti, F., et al. 2000. Mutational analysis of the propensity for Amyloid formation by a globular protein. *EMBO J.* 19: 1441-1449.

CHROMOSOMAL LOCATION

Genetic locus: ACYP2 (human) mapping to 2p16.2; Acyp2 (mouse) mapping to 11 A4.

SOURCE

ACYP2 (FL-99) is a rabbit polyclonal antibody raised against amino acids 1-99 representing full length ACYP2 of human origin.

PRODUCT

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

APPLICATIONS

ACYP2 (FL-99) is recommended for detection of muscle acylphosphatase 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).

ACYP2 (FL-99) is also recommended for detection of muscle acylphosphatase in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ACYP2 siRNA (h): sc-38900, ACYP2 siRNA (m): sc-38901, ACYP2 shRNA Plasmid (h): sc-38900-SH, ACYP2 shRNA Plasmid (m): sc-38901-SH, ACYP2 shRNA (h) Lentiviral Particles: sc-38900-V and ACYP2 shRNA (m) Lentiviral Particles: sc-38901-V.

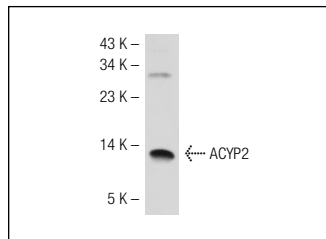
Molecular Weight of ACYP2: 11 kDa.

Positive Controls: Sol8 cell lysate: sc-2249.

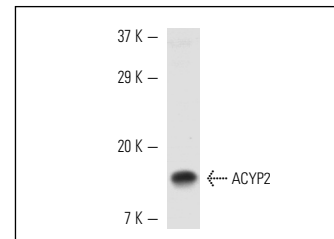
RECOMMENDED SECONDARY REAGENTS

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



ACYP2 (FL-99): sc-28214. Western blot analysis of ACYP2 expression in Sol8 whole cell lysate.



ACYP2 (FL-99): sc-28214. Western blot analysis of ACYP2 expression in Sol8 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.

MONOS
Satisfaction
Guaranteed

Try **ACYP2 (B-3): sc-398298** or **ACYP2 (G-5): sc-398251**, our highly recommended monoclonal alternatives to ACYP2 (FL-99).