

# Aspartoacylase (N-13): sc-109212

## BACKGROUND

Aspartoacylase, also known as ASPA, ACY2 or ASP, is a 313 amino acid protein that is expressed in liver, lung and kidney tissue, as well as in skeletal muscle and in cerebral white matter. Existing as a homodimer, Aspartoacylase functions to catalyze the deacetylation of N-acetylaspartic acid (NAA) (a protein whose hydrolysis is crucial to maintenance of intact white matter) to produce acetate and L-aspartate. Defects in the gene encoding Aspartoacylase are the cause of Canavan disease (CAND), which is a rare neurodegenerative condition that is characterized by white matter vacuolization and demyelination, resulting in a spongy deterioration of brain tissue. CAND is generally characterized by atonia of neck muscles, hypotonia, hyperextension of legs and flexion of arms, blindness, severe mental retardation, megaloccephaly and death.

## REFERENCES

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4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608034. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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8. Bitto, E., et al. 2007. Structure of Aspartoacylase, the brain enzyme impaired in Canavan disease. *Proc. Natl. Acad. Sci. USA* 104: 456-461.
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## CHROMOSOMAL LOCATION

Genetic locus: ASPA (human) mapping to 17p13.3.

## SOURCE

Aspartoacylase (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Aspartoacylase 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 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109212 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Aspartoacylase (N-13) is recommended for detection of Aspartoacylase of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

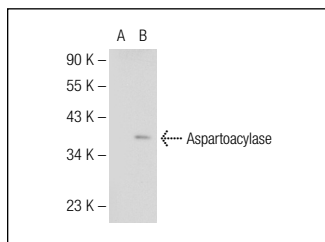
Suitable for use as control antibody for Aspartoacylase siRNA (h): sc-93596, Aspartoacylase shRNA Plasmid (h): sc-93596-SH and Aspartoacylase shRNA (h) Lentiviral Particles: sc-93596-V.

Molecular Weight of monomer Aspartoacylase: 38 kDa.

Molecular Weight of dimer Aspartoacylase: 84 kDa.

Positive Controls: Aspartoacylase (h): 293T Lysate: sc-114276.

## DATA



Aspartoacylase (N-13): sc-109212. Western blot analysis of Aspartoacylase expression in non-transfected: sc-117752 (A) and human Aspartoacylase transfected: sc-114276 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

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Try **Aspartoacylase (D-11): sc-377308** or **Aspartoacylase (F-1): sc-365588**, our highly recommended monoclonal alternatives to Aspartoacylase (N-13).