




Product datasheet

Anti-ARSA/ASA antibody ab77586

3 Images

Overview

Product name	Anti-ARSA/ASA antibody
Description	Goat polyclonal to ARSA/ASA
Host species	Goat
Tested applications	Suitable for: IHC-P, WB, ICC, Flow Cyt (Intra)
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Chimpanzee, Rhesus monkey 
Immunogen	Synthetic peptide corresponding to Human ARSA/ASA aa 429-440 (internal sequence). Sequence: C-YDLSKDPGENYN Database link: NP_000478.2 <div>  Run BLAST with  Run BLAST with </div>
Positive control	IHC: Human cortex staining WB: Mouse testis lysates and Recombinant Human ARSA/ASA protein (ab116931) Flow Cyt (intra): HeLa cells ICC: HeLa cells
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 0.5% BSA, 99% Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	ab77586 is purified from goat serum by ammonium sulphate precipitation followed by antigen

affinity chromatography using the immunizing peptide.

Clonality

Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab77586 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use a concentration of 0.3 - 1 µg/ml. Detects a band of approximately 54 kDa (predicted molecular weight: 54 kDa). 1 hour primary incubation is recommended for this product. Approx 60-65Da band observed in Mouse and Rat Testis lysates.
ICC		Use a concentration of 10 µg/ml.
Flow Cyt (Intra)		Use a concentration of 10 µg/ml.

Target

Function

Hydrolyzes cerebroside sulfate.

Involvement in disease

Defects in ARSA are a cause of leukodystrophy metachromatic (MLD) [MIM:250100]. MLD is a disease due to a lysosomal storage defect. It is characterized by intralysosomal storage of cerebroside-3-sulfate in neural and non-neural tissues, with a diffuse loss of myelin in the central nervous system. Progressive demyelination causes a variety of neurological symptoms, including gait disturbances, ataxias, optical atrophy, dementia, seizures, and spastic tetraparesis. Three forms of the disease can be distinguished according to the age at onset: late-infantile, juvenile and adult.

Arylsulfatase A activity is defective in multiple sulfatase deficiency (MSD) [MIM:272200]. MSD is a disorder characterized by decreased activity of all known sulfatases. MSD is due to defects in SUMF1 resulting in the lack of post-translational modification of a highly conserved cysteine into 3-oxoalanine. It combines features of individual sulfatase deficiencies such as metachromatic leukodystrophy, mucopolysaccharidosis, chondrodysplasia punctata, hydrocephalus, ichthyosis, neurologic deterioration and developmental delay.

Sequence similarities

Belongs to the sulfatase family.

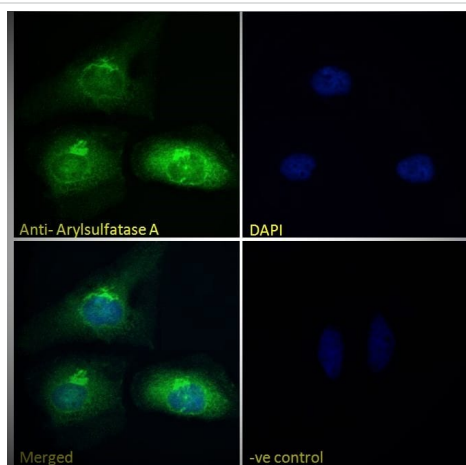
Post-translational modifications

The conversion to 3-oxoalanine (also known as C-formylglycine, FGly), of a serine or cysteine residue in prokaryotes and of a cysteine residue in eukaryotes, is critical for catalytic activity. This post-translational modification is severely defective in multiple sulfatase deficiency (MSD).

Cellular localization

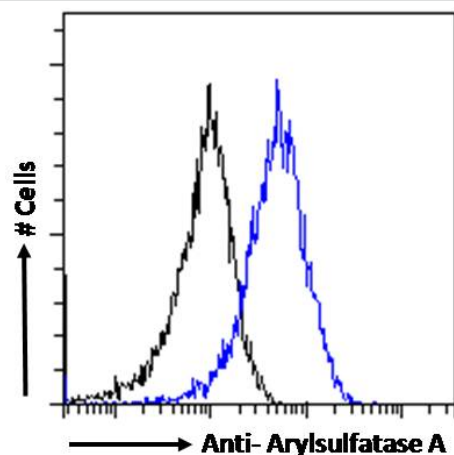
Lysosome.

Images



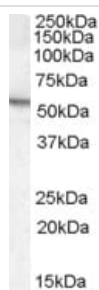
Immunocytochemistry - Anti-ARSA/ASA antibody (ab77586)

Immunofluorescence analysis of HeLa cells labelling ARSA/ASA with ab77586 at 10 µg/mL. Cells were permeabilized with 0.15% Triton X-100. Alexa Fluor 488 secondary antibody (2ug/ml). Nuclear DNA was labelled with DAPI (blue). Negative control: Unimmunized goat IgG 10 µg/mL.



Flow Cytometry (Intracellular) - Anti-ARSA/ASA antibody (ab77586)

Flow Cytometry analysis of HeLa (human epithelial cell line from cervix adenocarcinoma) cells labelling ARSA/ASA with ab77586 at 10 µg/mL. Cells were permeabilised with 0.5% Triton. Alexa Fluor 488 secondary antibody (1ug/ml). Unimmunized goat IgG was used as the isotype control (black).



Western blot - Anti-ARSA/ASA antibody (ab77586)

Anti-ARSA/ASA antibody (ab77586) at 0.5 µg/ml + Mouse Testis lysate (in RIPA buffer) at 35 µg

Predicted band size: 54 kDa

Observed band size: 54 kDa

Primary incubation was 1 hour.

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