# abcam

# Product datasheet

# Anti-ARSA/ASA antibody [EPR11039] ab174844

Recombinant RabMAb

1 References 4 Images

Overview

**Product name** Anti-ARSA/ASA antibody [EPR11039]

**Description** Rabbit monoclonal [EPR11039] to ARSA/ASA

**Host species** Rabbit

**Tested applications** Suitable for: IHC-P, WB

Unsuitable for: Flow Cyt,ICC/IF or IP

Species reactivity Reacts with: Human

Predicted to work with: Mouse 
Does not react with: Rat

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control Human skin, A431 and HeLa lysates; Human colon and kidney tissues.

**General notes** This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

**Properties** 

**Form** Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

supernatant

**Purity** Protein A purified

Clonality Monoclonal

Clone number EPR11039

**Isotype** IgG

#### **Applications**

# The Abpromise guarantee

Our Abpromise quarantee covers the use of ab174844 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		1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		1/1000 - 1/5000. Detects a band of approximately 60-62 kDa (predicted molecular weight: 54 kDa).

**Application notes** 

Is unsuitable for Flow Cyt,ICC/IF or IP.

### **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.

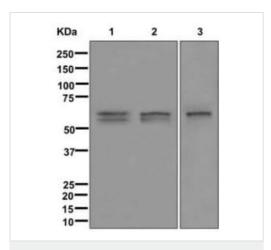
# Post-translational modifications

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**



Western blot - Anti-ARSA/ASA antibody [EPR11039] (ab174844)

**All lanes :** Anti-ARSA/ASA antibody [EPR11039] (ab174844) at 1/1000 dilution

Lane 1 : Human skin lysates
Lane 2 : A431 cell lysates
Lane 3 : HeLa cell lysates

Lysates/proteins at 10 µg per lane.

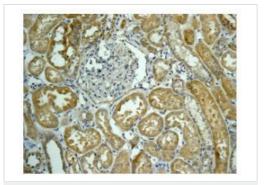
Predicted band size: 54 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-ARSA/ASA antibody
[EPR11039] (ab174844)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human colon tissue labeling ARSA/ASA with ab174844 at 1/50 dilution.

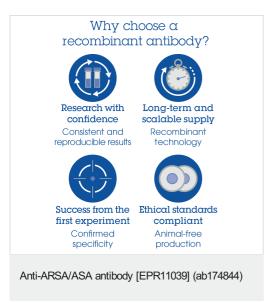
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-ARSA/ASA antibody
[EPR11039] (ab174844)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human kidney tissue labeling ARSA/ASA with ab174844 at 1/50 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



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