Datasheet for ABIN7194313

# Arylsulfatase A Protein (ARSA) (His tag)

Go to Product page

## Overview

| | |
|---|---|
| Quantity: | 50 µg |
| Target: | Arylsulfatase A (ARSA) |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Biological Activity: | Active |
| Purification tag / Conjugate: | This Arylsulfatase A protein is labelled with His tag. |

## Product Details

| | |
|---|---|
| Purpose: | Recombinant Human Arylsulfatase A/ARSA Protein (His Tag)(Active) |
| Sequence: | Met 1-Ala 507 |
| Characteristics: | A DNA sequence encoding the human Arylsulfatase A (NP_000478.2) (Met 1-Ala 507) was expressed with a C-terminal polyhistidine tag. |
| Purity: | > 97 % as determined by reducing SDS-PAGE. |
| Endotoxin Level: | < 1.0 EU per µg as determined by the LAL method. |
| Biological Activity Comment: | Measured by its ability to hydrolyze the substrate 4-Nitrocatechol Sulfate (PNCS). The specific activity is >50 pmoles/min/µg. |

## Target Details

| | |
|---|---|
| Target: | Arylsulfatase A (ARSA) |

## Target Details

| | |
|---|---|
| Alternative Name: | Arylsulfatase A/ARSA (ARSA Products) |
| Background: | Background: Arylsulfatase A (ARSA) is synthesized as a 52KDa lysosomal enzyme. It is a member of the sulfatase family that is required for the lysosomal degradation of cerebroside-3-sulfate, a sphingolipid sulfate ester and a major constituent of the myelin sheet. Arylsulfatase A is activated by a required co- or posttranslational modification with the oxidation of cysteine to formylglycine. Metachromatic leukodystrophy (MLD) is a lysosomal storage disease in the central and peripheral nervous systems with severe and progressive neurological symptoms caused by the deficiency of Arylsulfatase A. Deficiency of this enzyme is also found in apparently healthy individuals, a condition for which the term pseudodeficiency is introduced. ARSA forms dimers after receiving three N-linked oligosaccharides in the endoplasmic reticulum, and then the dimers are transported to the Golgi where they receive mannose 6-phosphate recognition markers. And thus, ARSA is transported and delivered to dense lysosomes in a mannose 6-phosphate receptor-dependent manner. It has been shown that within the lysosomes, the ARSA dimers can oligomerize to an octamer in a pH -dependent manner. The ARSA deficiency leads to metachromatic leucodystrophy (MLD), a lysosomal storage disorder associated with severe and progressive demyelination in he central and peripheral nervous system. Additionally, the serum level of arylsulfatase A might be helpful in diagnosis of lung and central nervous system cancer.<br>Synonym: Arylsulfatase A, ASA, Cerebroside-Sulfatase, ARSA |
| Molecular Weight: | 53 kDa |
| NCBI Accession: | NP_000478 |

## Application Details

| | |
|---|---|
| Restrictions: | For Research Use only |

## Handling

| | |
|---|---|
| Format: | Lyophilized |
| Reconstitution: | Please refer to the printed manual for detailed information. |
| Buffer: | Lyophilized from sterile 25 mM Tris, 0.15 mM NaCl, pH 7.5 |
| Storage: | 4 °C,-20 °C,-80 °C |
| Storage Comment: | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted |

samples are stable at < -20°C for 3 months.