Recombinant human Arylsulfatase A/ARSA protein

Catalog Number: ATGP3826

PRODUCT INFORMATION

Expression system
Baculovirus

Domain
21-509aa

UniProt No.
P15289

NCBI Accession No.
NP_000478

Alternative Names
ASA, Cerebroside-sulfatase, metachromatic leucodystrophy(MLD)

PRODUCT SPECIFICATION

Molecular Weight
53 kDa (498aa)

Concentration
0.25mg/ml (determined by absorbance at 280nm)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity
> 95% by SDS-PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity
Specific activity is > 2,500pmol/min/ug, and defined as the amount of enzyme that hydrolyze 4-Nitrocatechol at pH 5.0 at 37C.

Tag
His-Tag

Application
SDS-PAGE, Enzyme Activity

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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Description

ARSA, also known as arylsulfatase A isoform a, is a member of the sulfatase family. It hydrolyzes cerebroside sulfate, namely cerebroside 3-sulfate. It is found in many tissues, but predominantly in myelin and kidney. This protein is activated by a posttranslational modification (PTM) with the oxidation of cysteine to formylglycine. It could be helpful in diagnosis of lung and central nervous system cancer through the serum level of this protein. The ARSA deficiency results in metachromatic leukodystrophy (MLD), a lysosomal storage disease in the central and peripheral nervous systems with severe and progressive neurological symptoms. Recombinant human ARSA protein, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

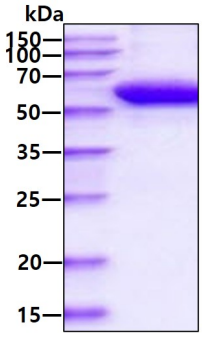
<ADP>RPPNIVL IFADDLGYGD LGCYGHPSST TPNLDQLAAG GLRFTDFYVP VSLCTPSRAA LLTGRLPVRM GMYPGVLVPS SRGGLPLEEV TVAEVLAARG YLTGMAGKWH LGVGPEGAFL PPHQGFHRFL GIPYSHDQGP CQNLTCFPPA TPCDGGCDQG LVPIPLLANL SVEAQPPWLP GLEARYMAFA HDLMADAQRQ DRPFFLYYAS HHTHYPQFSG QSFAERSGRG PFGDSLMELD AAVGTLMTAI GDLGLLEETL VIFTADNGPE TMRMSRGGCS GLLRCGKGTT YEGGVREPAL AFWPGHIAPG VTHELASSLD LLPTLAALAG APLPNVTLDG FDLSPLLLGT GKSPRQSLFF YPSYPDEVRG VFAVRTGKYK AHFFTQGSAH SDTTADPACH ASSSLTAHEP PLLYDLSKDP GENYNLLGGV AGATPEVLQA LKQLQLLKAQ LDAAVTFGPS QVARGEDPAL QICCHPGCTP RPACCHCPDP HA<HHHHHH>

General References

Shahzad MA., et al, (2017) J Mol Neurosci. 63:84-90.
Cesani M., et al, (2017) Hum Mutat. 37:16-27.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.