### Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Recombinant Human Iduronate 2 sulfatase/SIDS protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein length</td>
<td>Full length protein</td>
</tr>
</tbody>
</table>

### Description

<table>
<thead>
<tr>
<th>Nature</th>
<th>Recombinant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Wheat germ</td>
</tr>
<tr>
<td>Amino Acid Sequence</td>
<td></td>
</tr>
<tr>
<td>Species</td>
<td>Human</td>
</tr>
<tr>
<td>Sequence</td>
<td>MPPPRTGRGLLWLGLVLSVCVALGSETQANSTTDAL NVLLIVDDLRLPS LGCYGDKLVRSPNIDQLASHSLFQNAFAQQAVCAPS RVSFLTGRRPDTT RLYDFNSYWRHAGNFSTIPQYFKENGYVTMSVGVKVF HPGISSNHTDDSP YSWSFPPYHpSSEKYNKTCTCRGPDGELHANLCPVVD VLDVPEGTPDKQ STEQAQLLEKMTSATSPFFLAVGYKHPHIPFYPKEF QKLYPLENITLA PDPEVPDGLPPVAYNPWMDIRQREDVQLNISVPYGPI PVDFQEDQSSTG FRLKTSSTRKYK</td>
</tr>
</tbody>
</table>

| Amino acids     | 1 to 312                                          |
| Tags            | GST tag N-Terminus                                |

### Specifications

Our Abpromise guarantee covers the use of **ab158721** in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Applications</th>
<th>Western blot</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>ELISA</td>
</tr>
</tbody>
</table>

| Form         | Liquid        |

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Additional notes

Protein concentration is above or equal to 0.05 mg/ml.
This product was previously labelled as Iduronate 2 sulfatase.

Preparation and Storage

Stability and Storage

Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles.

pH: 8.00

 Constituents: 0.31% Glutathione, 0.79% Tris HCl

General Info

Function

Required for the lysosomal degradation of heparan sulfate and dermatan sulfate.

Tissue specificity

Liver, kidney, lung, and placenta.

Involvement in disease

Defects in IDS are the cause of mucopolysaccharidosis type 2 (MPS2) [MIM:309900]; also known as Hunter syndrome. MPS2 is an X-linked lysosomal storage disease characterized by intracellular accumulation of heparan sulfate and dermatan sulfate and their excretion in urine. Most children with MPS2 have a severe form with early somatic abnormalities including skeletal deformities, hepatosplenomegaly, and progressive cardiopulmonary deterioration. A prominent feature is neurological damage that presents as developmental delay and hyperactivity but progresses to mental retardation and dementia. They die before 15 years of age, usually as a result of obstructive airway disease or cardiac failure. In contrast, those with a mild form of MPS2 may survive into adulthood, with attenuated somatic complications and often without mental retardation.

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.

Cellular localization

Lysosome.

Images

ab158721 on a 12.5% SDS-PAGE stained with Coomassie Blue.

SDS-PAGE - Recombinant Human Iduronate 2 sulfatase/IDS protein (ab158721)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"
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