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# Anti-Human ARSA DyLight® 550 conjugated Antibody(monoclonal, 4C10)

Catalog # ABO14809

## Product Information

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| **Application** | FC |
| **Primary Accession** | P15289 |
| **Host** | Mouse |
| **Isotype** | Mouse IgG2a |
| **Reactivity** | Human |
| **Clonality** | Monoclonal |
| **Format** | Liquid |
| **Description** | Anti-Human ARSA DyLight® 550 conjugated Antibody (monoclonal, 4C10) . Tested in Flow Cytometry applications. This antibody reacts with Human. |

## Additional Information

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| **Gene ID** | 410 |
| **Other Names** | Arylsulfatase A, ASA, 3.1.6.8, Cerebroside-sulfatase, Arylsulfatase A component B, Arylsulfatase A component C, ARSA |
| **Calculated MW** | 53588 |
| **Application Details** | Flow Cytometry, 1-3 □g/1x10^6 cells |
| **Subcellular Localization** | Lysosome. |
| **Source** | Eukaryota |
| **Contents** | Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na2HPO4, 0.02% NaN3. |
| **Clone Names** | Clone: 4C10 |
| **Immunogen** | A synthetic peptide corresponding to a sequence at the C-terminus of human ARSA, different from the related mouse sequence by six amino acids. |
| **Cross Reactivity** | No cross-reactivity with other proteins. |
| **Storage** | At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light. |

## Protein Information

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| **Name** | ARSA ( HGNC:713) |
| **Function** | Lysosomal enzyme that catalyzes the hydrolysis of cerebroside-3-sulfate |

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| | (N-acyl-1-beta-D-(3-O-sulfo)-galactosyl-sphing-4- enine) into cerebroside and sulfate, a reaction that requires the activator protein saposin B (PubMed:10751093, PubMed:19224915, PubMed:24294900). Also involved in the catabolism of other sulfoglycosphingolipids such as SB1a and SM3 (beta-D-3-sulfogalactosyl- (1->4)-beta-D-glucosyl-(11')-N-acylsphing-4-enine) (By similarity). |
| **Cellular Location** | Endoplasmic reticulum. Lysosome |

## Background

Arylsulfatase A (ARSA) is an enzyme that breaks down sulfatides, namely cerebroside 3-sulfate intocerebroside and sulfate. In humans, arylsulfatase A is encoded by the ARSA gene. ARSA is mapped to 22q13.33. The protein encoded by this gene hydrolyzes cerebroside sulfate to cerebroside and sulfate. Defects in this gene lead to metachromatic leucodystrophy (MLD), a progressive demyelination disease which results in a variety of neurological symptoms and ultimately death. Alternatively spliced transcript variants have been described for this gene.

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