

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                      |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Adenosylhomocysteinase/AHCY in direct ELISAs and Western blots.                              |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                                       |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                  |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human Adenosylhomocysteinase/AHCY<br>Ser2-Tyr432<br>Accession # P23526 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm                            |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                               |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                            |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Human S-Adenosylhomocysteinase (AHCY) is a cytoplasmic tetramer with a tightly bound NAD co-factor for each subunit (1, 2). It is the only known enzyme to catalyze the breakdown of S-adenosylhomocysteine (AdoHcy) to homocysteine and adenosine. AdoHcy hydrolysis is a reversible reaction with an equilibrium favoring AdoHcy formation, but hydrolysis prevails under physiological conditions due to the rapid removal of adenosine and homocysteine. Thus, AHCY's activity in mammals is directly related to homocysteine level, an independent risk factor for vascular disease (3). It also functions as a regulator of biological transmethylation by controlling the concentration of AdoHcy, a potent competitive inhibitor of all S-adenosyl-L-methionine methyltransferases (1). A mutation in the human AHCY results in AHCY deficiency with increase of plasma creatine kinase, methionine, S-adenosylmethionine and AdoHcy, delay of myelination, myopathy and psychomotor retardation (4, 5).

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