

#### DESCRIPTION

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|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Histamine N-Methyltransferase/HNMT 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 Histamine N-Methyltransferase/HNMT<br>Ser7-Ala292<br>Accession # P50135                                                                                                                                                           |
| <b>Conjugate</b>          | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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

HNMT (Histamine N-MethylTransferase/HMT) is a 32-34 kDa monomeric member of the HNMT family, methyltransferase superfamily of enzymes. It is found in the cytosol of a variety of cell types including visceral smooth muscle cells, bronchial epithelium, erythrocytes and neurons of the central and peripheral nervous system. HNMT is one of two histamine-processing enzymes in mammals. Following transport of histamine into the cell, HNMT catalyzes the addition of adenosyl-L-Met to histamine, generating N-methylhistamine. Human HNMT is 292 amino acids (aa) in length. It contains one methyl transferase domain (aa 32-216) and three potential Ser phosphorylation sites. The HNMT gene is polymorphic, with single aa changes known to impact activity. There are also two splice variants. One shows a five aa substitution for aa 47-292, while another contains a 63 aa substitution for aa 64-292. The latter isoform is reported to possess a GPI-linkage but show no activity on histamine. Over aa 2-292, human HNMT shares 83% aa sequence identity with mouse HNMT.

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