

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse/Rat                                                                                                                                                                                                                                                                   |
| <b>Specificity</b>        | Detects mouse and rat M-Cadherin/Cadherin-15 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human M-Cadherin/Cadherin-15 is observed, and less than 1% cross-reactivity with recombinant                         |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse M-Cadherin/Cadherin-15<br>Val22-Ala605 (Arg159His)<br>Accession # P33146                                                                                                                                              |
| <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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | 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

CDH-15 (Cadherin 15; also M-cadherin, Muscle cadherin and Cadherin-14) is a 125-127 kDa atypical member of the classical cadherin family, cadherin superfamily of molecules. It is expressed by muscle satellite cells, cells of the embryonic myotome, and hematopoietic bone marrow stem cells. CDH-15 appears to bind homotypically in trans, thus allowing for the identification and subsequent fusion of myoblast precursors, particularly those in slow-twitch (or red fiber) muscles. This is accompanied by a downregulation of mitochondrial induced apoptosis. Mouse CDH-15 is synthesized as a 784 amino acid (aa) preproprecursor. It contains a 21 aa signal sequence, a 38 aa propeptide, and a 725 aa mature region. The mature region is expressed as a type I transmembrane glycoprotein that possesses a 546 aa extracellular region (aa 60-605) and a 159 aa cytoplasmic domain (aa 626-784). The extracellular region shows five consecutive cadherin domains. Over aa 22-605, mouse CDH-15 shares 88% and 97% aa sequence identity with human and rat CDH-15, respectively.

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