

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse MCAM/CD146 in direct ELISAs and Western blots. In direct ELISAs, approximately 40% cross-reactivity with recombinant rat MCAM is observed and approximately 10% cross-reactivity with recombinant human MCAM is observed.                                     |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse MCAM/CD146<br>Val24-Tyr563<br>Accession # Q8R2Y2                                                                                                                                                                      |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 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>Immunocytochemistry</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

MCAM (Melanoma cell adhesion molecule; also CD146 and MUC18) is a 110-120 kDa member of a small group of Ig-superfamily molecules that includes CD239 and CD166. MCAM has also been reported at a molecular weight of approximately 150 kDa. In rodent, MCAM is reportedly expressed on neurons, endothelial cells, NK cells, neutrophils, mesenchymal stem cells and melanoma cells. MCAM appears to contribute to intercellular endothelial cell junctions, and possibly contributes to the migration of select cell types. Mature mouse MCAM is a 625 amino acid (aa) type I transmembrane glycoprotein. Its extracellular region is 540 aa in length (aa 24-563). It contains two V-type Ig-like domains (aa 24-244) followed by three C2-type Ig-like domains (aa 246-512). One cytoplasmic region splice form shows a seven aa substitution for aa 600-648. Unlike human, rodent MCAM does not undergo a splicing event that will generate a soluble isoform. Over aa 24-563, mouse MCAM shares 90% and 74% aa identity with rat and human MCAM, respectively.

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