

#### DESCRIPTION

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Mouse                                                                                          |
| <b>Specificity</b>                                                                                                                                                                                      | Detects mouse MR1 in direct ELISAs.                                                            |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Rat IgG <sub>2A</sub> Clone # 909417                                                |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                                     |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line NS0-derived recombinant mouse MR1<br>Met1-Arg296<br>Accession # Q8HWB0 |
| <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.

**Immunohistochemistry** 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

The Major Histocompatibility Complex (MHC) class I-related gene, MR1, considered a non-classical MHC class IA gene which is encoded outside the MHC region. The MR1 is responsible for activation of Mucosal-associated Invariant T (MAIT) cells expressing semi-invariant T cell receptors in the presence of bacteria. MR1 is a highly evolutionary conserved protein with regard to  $\alpha 1$  and  $\alpha 2$  domains corresponding to the peptide-binding domains of classical MHC class I molecules which show about 90% amino acid identity between human and mouse. MR1 protein can associate with  $\beta 2$ -microglobulin, which indicates that this is a typical class I heterodimer composed of a heavy and a light chain resembling the classical MHC class I molecules.

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