

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse MR1 in direct ELISAs.
Source	Monoclonal Rat IgG _{2A} Clone # 909417
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse MR1 Met1-Arg296 Accession # Q8HWP0
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

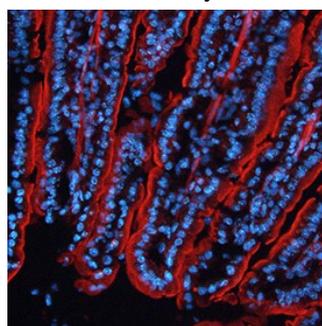
APPLICATIONS

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.

	Recommended Concentration	Sample
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



MR1 in Rat Intestine. MR1 was detected in perfusion fixed frozen sections of rat intestine using Rat Anti-Mouse MR1 Monoclonal Antibody (Catalog # MAB8526) at 25 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to villi epithelial cells. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 α1 and α2 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 β2-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.