Equine IL-1β/IL-1F2 Antibody

Monoclonal Mouse IgG_1 Clone # 608714

Catalog Number: MAB33401

DESCRIPTION

Species Reactivity	Equine
Specificity	Detects equine IL-1β/IL-1F2 in direct ELISAs. In direct ELISAs, 100% cross-reactivity with recombinant canine, guinea pig, mouse, rat, and porcine IL-1 beta is observed and 10-50% cross-reactivity with recombinant feline, human, rabbit, and rhesus IL-1 beta is observed. Approximately 20% cross-reactivity with recombinant mouse (rm) IL-36 alpha and no cross-reactivity with recombinant human (rh) IL-36 alpha, rhIL-36 gamma, rhIL-1F10, rhIL-36Ra, rmIL-1Ra, rmIL-18, or rmIL-36 beta is observed.
Source	Monoclonal Mouse IgG_1 Clone # 608714
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant equine IL-1β/IL-1F2 Ala116-Ala268 Accession # Q28286
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 either lyophilized or as a 0.2 μm filtered solution in PBS.

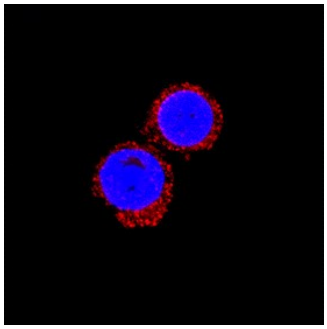
APPLICATIONS

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
Immunocytochemistry	20-30 µg/mL	See Below

DATA

Immunocytochemistry



IL-1β/IL-1F2 in Equine PBMCs. IL-1β/IL-1F2 was detected in immersion fixed equine peripheral blood mononuclear cells (PBMCs) using Mouse Anti-Equine IL-1β/IL-1F2 Monoclonal Antibody (Catalog # MAB33401) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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.** ● 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.

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BACKGROUND

IL-1 is a name that designates two pleiotropic cytokines, IL-1α (IL-1F1) and IL-1β (IL-1F2), which are the products of distinct genes. IL-1α and IL-1β are structurally related polypeptides that share approximately 27% amino acid (aa) identity in equine. Both proteins are produced by a wide variety of cells in response to inflammatory agents, infections, or microbial endotoxins. While IL-1α and IL-1β are regulated independently, they bind to the same receptor and exert identical biological effects. IL-1 RI binds directly to IL-1α or IL-1β and then associates with IL-1 R accessory protein (IL-1 R3/IL-1 R AcP) to form a high-affinity receptor complex that is competent for signal transduction. IL-1 RII has high affinity for IL-1β but functions as a decoy receptor and negative regulator of IL-1β activity. IL-1ra functions as a competitive antagonist by preventing IL-1α and IL-1β from interacting with IL-1 RI (1-4). The equine IL-1β cDNA encodes a 268 aa precursor. A 115 aa propeptide is cleaved intracellularly by the cysteine protease IL-1β-converting enzyme (Caspase-1/ICE) to generate the active cytokine (5-7). An alternatively spliced form of equine IL-1β has a deletion which encompasses the Caspase-1 cleavage site and potentially results in a membrane-associated form (8). The 17 kDa mature equine IL-1β shares 65%-75% aa sequence identity with canine, cotton rat, feline, human, mouse, porcine, rat, and rhesus IL-1β.

References:

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