ProductInformation

ANTI-MACROPHAGE INFLAMMATORY PROTEIN-II (MIP-II)
Developed in Goat
Affinity Isolated Antibody

Product Number **M9432**

Product Description

Anti-Macrophage Inflammatory Protein-II (MIP-II) is developed in goat using purified, recombinant viral macrophage inflammatory protein II (MIP II), expressed in E. coli, as immunogen. The antibody is purified using viral MIP-II affinity chromatography.

Anti-Macrophage Inflammatory Protein-II (MIP-II) recognizes recombinant viral MIP-II by immunoblotting and ELISA. By ELISA, the antibody shows < 10% cross-reactivity with recombinant viral MIP-I and recombinant human MIP-1β. In addition, the antibody shows no cross-reactivity to other chemokines tested by ELISA.

Human herpes virus-8 (HHV-8)/Kaposi's sarcoma-associated herpes virus (KSHV) is a γ herpes virus with homology to herpes virus Saimiri and Epstein-Barr virus. HHV-8 encodes a variety of immunomodulatory proteins that were apparently pirated from cellular genes by the virus. Three chemokine-like proteins, vMIP-I, vMIP-II and vMIP-III are encoded within the HHV-8 genome. Among human chemokines, vMIP-II is most closely related to MIP-1α, sharing approximately 41% amino acid sequence identity. vMIP-I and vMIP-II also share 48% amino acid identity. vMIP-I and vMIP-II may have arisen by gene duplication within the virus rather than by two independent gene acquisitions. The CC chemokine receptor (CCR) 8 belongs to the seven transmembrane-spanning receptor families and functionally responds to the eukaryotic CC chemokines I-309, MIP-1β and vMIP-I and vMIP-II. Both vMIP-I and vMIP-II partially block HIV infection of peripheral blood mononuclear cells. vMIP-I and vMIP-II are highly angiogenic in the chorioallantoic assay, suggesting that they may be partially responsible for the marked vascularity seen in KSHV-associated tumors.

Viral MIP-II cDNA encodes a 94 amino acid residue precursor protein with a 23 amino acid residue signal peptide that is cleaved to yield a 71 amino acid residue mature protein.

Reagents

Anti-Macrophage Inflammatory Protein-II (MIP-II) is supplied lyophilized from a 0.2 µm filtered solution of phosphate buffered saline. Endotoxin level is < 20 ng per mg antibody as determined by the LAL method.

Preparation Instructions

To one vial of lyophilized powder, add 1 ml of 0.2 µm-filtered PBS to produce a 0.1 mg/ml stock solution of antibody. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage/Stability

Prior to reconstitution, store at –20°C. Reconstituted product may be stored at 2-8°C for at least one month. For prolonged storage, freeze in working aliquots at –20°C. Avoid repeated freezing and thawing

Product Profile

For indirect ELISA, a working concentration of 0.5-1.0 µg/ml is determined to detect a limit of ~3 ng/well of recombinant viral MIP-II.

For indirect immunoblotting, a working concentration of 0.1-0.2 µg/ml is determined using viral MIP-II at 50 ng/lane under non-reducing and reducing conditions.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilutions by titration test.

References

1. Moore, P.S., et al., Molecular mimicry of human cytokine and cytokine response pathway genes by KSHV. Science, **274**,1739-1744 (1996).
2. Boshoff, C., et al., Angiogenic and HIV-inhibitory functions of KSHV-encoded chemokines. Science, **278**, 290-294 (1997).
3. Napolitano, M., and Santoni, A., Structure and function of the CC chemokine receptor (CCR) 8. Forum (Genova) **9**, 315-324 (1999).