Anti-viral MCV type II Antibody

ORDERING INFORMATION

Catalog Number: AF697

Lot Number: CZA01

Size: 100 μg

Formulation: 0.2 μm filtered solution in PBS

Storage: -20° C

Reconstitution: sterile PBS

Specificity: rvMCV type II

Immunogen: *E. coli*-derived rvMCV type II

Ig Type: goat IgG

Applications: Neutralization of bioactivity
Western blot
Direct ELISA

Preparation
Produced in goats immunized with purified, *E. coli*-derived, recombinant viral Molluscum contagiosum virus type II (rvMCV type II). MCV type II specific IgG was purified by viral MCV type II affinity chromatography.

Formulation
Lyophilized from a 0.2 μm filtered solution in phosphate-buffered saline (PBS).

Endotoxin Level
< 0.1 EU per 1 μg of the antibody as determined by the LAL method.

Reconstitution
Reconstitute with sterile PBS. If 1 mL of PBS is used, the antibody concentration will be 0.1 mg/mL.

Storage
Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity
This antibody has been selected for its ability to neutralize rvMCV type II bioactivity. In direct ELISAs, this antibody shows no cross-reactivity with other chemokines tested.[1]

Neutralization of Viral MCV type II Bioactivity
The exact concentration of antibody required to neutralize viral MCV type II activity is dependent on the cytokine concentration, cell type, growth conditions and the type of activity studied. To provide a guideline, R&D Systems has determined the neutralization dose for this antibody under a specific set of conditions. The **Neutralization Dose$_{50}$ (ND$_{50}$)** for this antibody is defined as that concentration of antibody required to yield one-half maximal inhibition of the cytokine activity on a responsive cell line, when that cytokine is present at a concentration just high enough to elicit a maximum response.
The ND$_{50}$ for this lot of anti-viral MCV type II antibody was determined to be approximately 5.0 - 20.0 μg/mL in the presence of 200 ng/mL of rvMCV type II and 20 ng/mL of rhI-309 measuring chemotaxis of hCCR8 transfected mouse BaF/3 cells. The specific conditions are described in the figure legends.

Additional Applications
Western blot - the antibody can be used at 0.1 - 0.2 μg/mL with the appropriate secondary reagents to detect viral MCV type II. The detection limit for rvMCV type II is approximately 1 ng/lane under non-reducing and reducing conditions.

Direct ELISA - the antibody can be used at 0.5 - 1.0 μg/mL with the appropriate secondary reagents to detect viral MCV type II. The detection limit for rvMCV type II is approximately 0.16 ng/well.

Optimal dilutions should be determined by each laboratory for each application.

R&D Systems, Inc.
1-800-343-7475

Figure 1

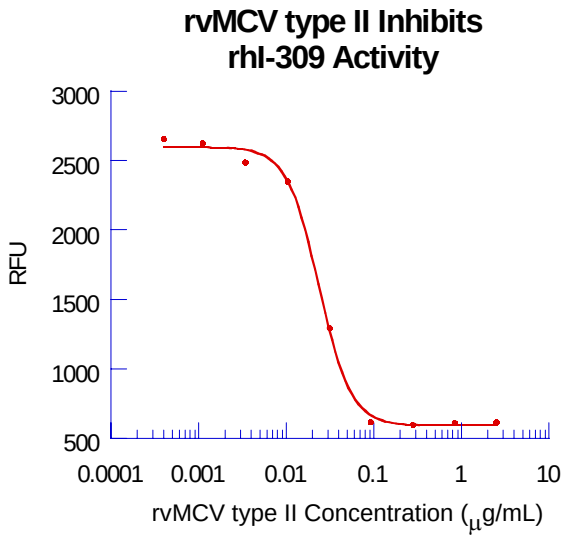

Figure 2

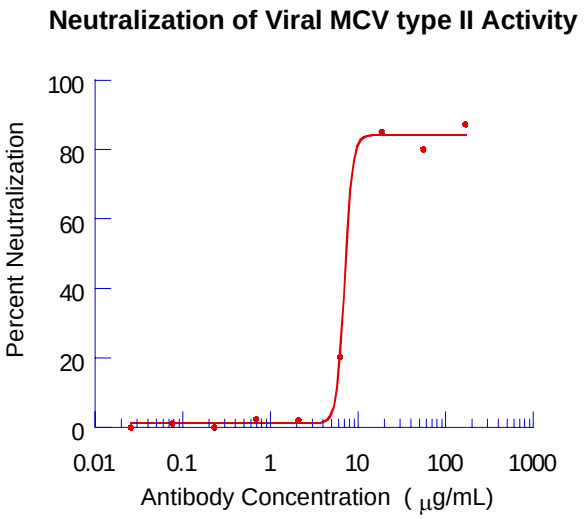

Figure 1
Viral MCV type II inhibits hI-309 (20.0 ng/mL) activity in hCCR8 transfected mouse BaF/3 cells. The ED_{50} for this effect is typically 15 - 75 ng/mL.

Figure 2
Typical data for anti-viral MCV type II is shown in Figure 2. To measure the ability of the antibody to neutralize the inhibitory activity of rvMCV type II using hCCR8 transfected BaF/3 cells, a mixture of rhI-309 and rvMCV type II was incubated with various concentrations of the antibody for 30 minutes at room temperature in a 96 well microplate. Following this preincubation period, 75 μL of the cytokine-antibody solution (containing rhI-309 at a final concentration of 20.0 ng/mL and rvMCV type II at a final concentration of 0.2 μg/mL and antibody at the concentrations indicated) was transferred to the lower compartment of a 96 well chemotaxis chamber (NeuroProbe, Cabin John, MD). The chemotaxis chamber was then assembled using a PVP-free polycarbonate filter (5 micron pore size) and 0.25 x 10^6 cells/well was added to the top chamber. After incubation for 3 hours at 37° C in a 5% CO_2 humidified incubator, the chamber was carefully disassembled. The cells that migrate through to the lower chamber were transferred to a 96 well plate. Chemotaxis was measured by Resazurin (R&D Systems, Catalog # AR002) staining of cells that have migrated through the filter. As shown in Figure 2, the ND_{50} for this lot of antibody is approximately 5 - 20 μg/mL.

[1]rh6Ckine, rm6Ckine, rmC10, rrCINC-1, rrCINC-2α, rrCINC-2β, rhBLC/BCA-1, rvCMV UL146, rmCRG-2, rhENA-78, rhEotaxin, rmEotaxin, rhEotaxin-2, rhFractalkine, rmFractalkine, rhGCP-2, rmGCP-2, rhGROα, rhGROβ, rhGROγ, rhI-309, rhIL-8, rhIP-10, rhI-TAC, rmJE, rmKC, rmLymphotactin, rmMARC, rhMCP-1, rhMCP-2, rhMCP-3, rhMCP-4, rmMCP-5, rhMDC, rmMDC, rhMIG, rmMIG, rmMIP-1β, rhMIP-1δ, rmMIP-1γ, rvMIP-I, rmMIP-2, rvMIP-II, rhMIP-3α, rrMIP-3α, rhMIP-3β, rmMIP-3β, rvMIP-III, rhMPIF-1, rhNAP-2, rhPARC, rhRANTES, rmRANTES, rhSDF-1α, rmSDF-1α, rhSDF-1β, rhTarc, rmTCA-3, rhTeck, rmTeck