Abstract

The US Veterinary Immune Reagent Network (VIRN) was established to address the lack of sufficient immunological reagents for diagnostic and research purposes for important pathogens. Since its establishment, the network has grown to include a large number of members and has shown to be bioactive using chemotaxis. Monoclonal antibodies (mAbs) to CC and CXC chemokine ligands (rPoCCLs) are being produced and offer detection capabilities for infectious microbes. Likewise, recombinant immunologically active proteins (rPs) have been produced and offer detection capabilities for infectious microbes. Likewise, recombinant immunologically active proteins (rPs) have been produced and offer detection capabilities for infectious microbes. Likewise, recombinant immunologically active proteins (rPs) have been produced and offer detection capabilities for infectious microbes.

Virtually all sequences have been deposited in GenBank. The US Veterinary Immune Reagent Network (US VIRN) will continue to develop and produce immunological reagents for infectious microbes.

Progress and Plans for Expression of Porcine Cytokines and Chemokines and mAb Production

Bioassay of expressed Swine Chemokines

Uprogregation of CD44 expression on IPEC-J2 cells (A black: 25.5%+, 152.2 MI)

Formation of CCL2 / CCL3L1 / CCL4 / CCL5 in IPEC-J2 cells

Screening Reactivity of anti-human IL-17a mAb

Cytotoxicity Assay for rPotNF-α on IEC-9 cells

Major efforts have been taken to test whether anti-human (or other species) mAbs cross react with swine proteins. In this study, Dr. Mary Dawson, BHNRIC, BARC has performed screens for numerous anti-swine cell surface and internal antigens. To affirm these cross-reactions, she has found that most human antibodies display similar performance in a direct and indirect ELISA. A summary of the reagents that we are investigating feasibility of deposition in gene banks.

Cytokines & Chemokines

Swine Cytokine FMA Standard Curves in 8-plex Assay

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20480, renewal #2010

929 cells

CCL2 / CCL3L1 / CCL4 / CCL5 in IPEC-J2 cells

Screening new anti-rPoCCLs mAbs for Cross Reaction with Cattle and Horse CCL2 and Lumine

Swine and porcine cell cultures were run side by side and demonstrated large differences. Bioassay of expressed Swine Chemokines

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