Mouse Anti-Virus VP7 of Bluetongue Virus Hybridoma [9C2C.2]

Anti-VP7 of Bluetongue Virus Hybridoma
Lot. No. (See product label)

CELL LINE INFORMATION

Cat.No.          CSC-H0881
Common Name     VP7 of Bluetongue Virus
Clone           9C2C.2
Cell Line Description
Animals were immunized with bluetongue virus (serotype 17). Spleen cells were fused with P3X63Ag8.653 myeloma cells. The antibody is specific for the structural protein VP7.

Introduction
The importance of VP7 of bluetongue virus (BTV) in the binding of BTV to membrane proteins of the BTV vector Culicoides variipennis was investigated. Core BTV particles, prepared from whole viruses, lacked outer proteins VP2 and VP5 and had VP7 exposed. More core particles and whole viruses bound to membrane preparations of adults of C. variipennis and KC cells, which were cultured from this vector insect, than to membrane preparations of Manduca sexta larvae. More core particles than whole viruses bound to membrane preparations of adults of C. variipennis and KC cells. Polyclonal anti-idiotypic antibodies (anti-Id), which were made against an antigen-combining region of an anti-BTV-10 VP7 antibody and functionally mimicked VP7, bound more to the membrane preparations of adults of C. variipennis and KC cells, and less to cytosol preparations. In Western overlay analysis, the Culicoides plasma membrane preparation reduced binding of an anti-VP7 monoclonal antibody to VP7. Whole and core BTV particles and the anti-Id bound to a membrane protein with a molecular mass of 23 kDa that was present predominantly in membrane preparations of adults of C. variipennis and KC cells. This protein was present in much lower concentrations in membrane preparations of C6/36 and DM-2 insect cells.

Immunogen
bluetongue virus (serotype 17)

Immunological Donor
Mouse Spleen

Myeloma
P3X63Ag8.653

Fusion Species
Mouse X Mouse Hybridoma

Growth Properties
Suspension

Morphology
Lymphoblast

Propagation
Complete growth medium: 4 mM L-glutamine, 4500 mg/L glucose, and 1500 mg/L sodium bicarbonate, fetal bovine serum to a final concentration of 10%.

Subculturing
Medium Renewal: Every 2 to 3 days
Cultures can be maintained by addition or replacement of fresh medium. Start cultures at 6 X 10^4 cells/ml and maintain between 5 X 10^4 and 4 X 10^5 cells/ml.

Mycoplasma
Mycoplasma Status: Negative (MycoAlert Kit)

Cellular Products
Immunoglobulin: monoclonal antibody against VP7 of bluetongue virus

ANTIBODY INFORMATION

Isotype
IgG2b

SAFETY AND PACKAGING

Storage
Liquid nitrogen
**Safety Considerations**  The following safety precautions should be observed.

1. Use pipette aids to prevent ingestion and keep aerosols down to a minimum.
2. No eating, drinking or smoking while handling the hybridoma.
3. Wash hands after handling the hybridoma and before leaving the lab.
4. Decontaminate work surface with disinfectant or 70% ethanol before and after working with hybridoma.
5. All waste should be considered hazardous.
6. Dispose of all liquid waste after each experiment and treat with bleach.

**Ship**  Dry ice