Mumps Virus, MuV/Iowa.US/2006, Plaque Purified

Catalog No. NR-51281

For research use only. Not for human use.

Contributor:
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Manufacturer:
BEI Resources

Product Description:

Virus Classification: Paramyxoviridae, Rubulavirus
Species: Mumps Virus
Strain/Isolate: MuV/Iowa.US/2006 (also referred to as MuV-IA)
Original Source: Mumps virus (MuV), MuV/Iowa.US/2006 was isolated from an oral swab of a human subject in Iowa, USA in 2006. It was plaque purified three times prior to deposit at BEI Resources.¹
Comments: Based on the sequence of the gene encoding the small hydrophobic (SH) protein, MuV/Iowa.US/2006 belongs to genotype G of mumps viruses.² The complete genome of MuV, MuV/Iowa.US/2006 has been sequenced (GenBank: JN012242).²

MuV is an enveloped negative-sense RNA virus belonging to family Paramyxoviridae. The MuV genome encodes for seven proteins, of which the SH gene is the most variable segment. Based on the SH gene sequence, MuV has 12 distinct genotypes from A to L.²⁴ MuV genotypes exhibit distinct geographical distribution with genotypes C-E, G and H observed in the Western Hemisphere, whereas genotypes B, F and I are mostly isolated in Asian countries.⁵

MuV causes acute parotitis in humans and is a neurotropic agent causing a number of central nervous system complications.² Introduction of the vaccine against measles, mumps and rubella (MMR) in 1971 led to a drastic reduction in illness due to MuV.²⁵ In spite of the success of the MMR vaccine, mumps outbreaks continue to occur in the US and other countries.²

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from Cercopithecus aethiops kidney epithelial cells infected with plaque purified mumps virus, MuV/Iowa.US/2006.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:
NR-51281 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:

Host: Cercopithecus aethiops kidney epithelial cells (Vero; ATCC® CRL-1586™)
Growth Medium: Dulbecco’s Modified Eagle’s Medium containing 4 mM L-glutamine, 4500 mg per L glucose, 1 mM sodium pyruvate, and 1500 mg per L sodium bicarbonate supplemented with 5% fetal bovine serum or equivalent
Infection: Cells should be 70% to 90% confluent
Incubation: 3 to 7 days at 37°C and 5% CO₂
Cytopathic Effect: Cell fusion and sloughing

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Mumps Virus, MuV/Iowa.US/2006, Plaque Purified, NR-51281.”

Biosafety Level: 2

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References:

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