

Anti-La Crosse virus, G1 envelope glycoprotein [807.31] Standard Size Ab01024-15.0

This antibody does not have a J-chain and therefore presents as a hexamer, rather than a pentamer.

This chimeric human antibody was made using the variable domain sequences of the original Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Human IgM, Kappa

Clone Number: 807.31

Alternative Name(s) of Target: LCV G1; G1 envelope glycoprotein; G1 glycoprotein; G1 protein; Envelopment polyprotein; M polyprotein; Glycoprotein G1

UniProt Accession Number of Target Protein: Q8JPR1

Published Application(s): IP, neutralising assays, viral serology, WB, ELISA, FC

Published Species Reactivity: La Crosse Bunyavirus

Immunogen: This antibody was raised by immunising BALB/c mice with La Crosse viruses and the harvested spleens were fused with mouse P3X63Ag8.653 myeloma cells.

Specificity: This antibody is specific for the Bunyavirus La Crosse G1 viral glycoprotein. According to the original publication (Gonzalez-Scarano et al, 1982), this antibody clone 807.31 was validated to belong to Group A antibodies, which were virus specific and with high neutralization (N) and hemagglutination inhibition (HI) titers. La Crosse Virus is an arbovirus (a virus transmitted by insects); it is one of the most important mosquito-borne viruses in the United States. La Crosse virus contains two glycoproteins, G1 and G2, the larger of which, G1, is the target of neutralizing antibodies.

Application Notes: In the original publication, this antibody, together with other 22 clones against the the G1 and N proteins of LaCrosse and Tahyna, was characterised by the ELISA assays, immunoprecipitation, neutralisation tests, and hemagglutination inhibition tests (Gonzalez-Scarano et al, 1982). It was used for antigenic taxonomy of California serogroup viruses and for the identification of the California serogroup viruses of North America (Gonzalez-Scarano et al, 1982). It was also used, together with the other anti-La Crosse mAb clones 807.35 and 807.27, in the neutralisation assays of murine leukemia virus pseudotypes of La Crosse and Hantaan Bunyaviruses to validate a system for analysis of cell tropism (Ma et al, 1999). Furthermore, a single immunisation with this antibody was reported to result in a robust immune response and protection against La Crosse virus (Pekosz et al, 1995). Recently, this antibody has been reported in various FACS analyses, for example, to demonstrate that mutagenesis of the La Crosse Virus glycoprotein

supports a role for Gc (1066–1087) as the fusion peptide (Plassmeyer et al, 2007), and to suggest that the fusion peptide of La Crosse virus Gc is a determinant of properties associated with neurotoxicity (Soldan et al, 2010).

Antibody First Published in: Gonzalez-Scarano et al. Characterization of monoclonal antibodies against the G1 and N proteins of LaCrosse and Tahyna, two California serogroup bunyaviruses. Virology. 1982 Jul 15;120(1):42-53. [PMID:7101727](#)

Note on publication: Describe the original generation of this antibody, together with other monoclonal antibodies against the G1 and N proteins of the two California serogroup bunyaviruses LaCrosse and Tahyna. This antibody was also characterised in neutralisation, hemagglutination inhibition, and ELISA tests against 11 California serogroup viruses.

Product Form

Size: 50 µg Purified antibody.

Purification: Affinity Purified using a recombinant lectin column

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.