Docket #: S02-058

Anti HA Monoclonal Antibody

Rat monoclonal antibody isotype IgG2a (clone #153) recognizes the HA peptide sequence [YPYDVPDYA] derived from the influenza hemagglutinin protein. The HA peptide can be added to unrelated proteins through recombinant techniques. The resulting "epitope-tagged" fusion protein can be detected using the anti-HA monoclonal antibody #153. Through the use of epitope-tagged proteins, scientists can use the anti-HA monoclonal antibody to help determine the function of proteins encoded by uncharacterized genes. For example, a HA epitope can be aded genetically to a newly discovered gene, and that gene can be expressed in a cell line. Cells expressing the gene can be selected for and the function of the encoded protein determined by various assays.Scientists have used epitope -tagged proteins to determine:
the size, cellular location, and post-transitional modifications of newly discovered genes;
the trafficking of proteins within cells;
the identitu of other proteins interacting with tagged proteins.

The antibody can also be used in immunoblotting (i.e. Western blots), immunoprecipitation, immunoassays (i.e. ELISA), immunocytochemistry, immunfluorescence, and flow cytometry.

Applications

- Immunoblotting
- Immunoprecipitation
- Immunoassays
- Immunocytochemistry
- Immunofluorescence
- Flow cytometry

Advantages

- Rat anti-HA monoclonals are extremely useful in mouse systems--epitope-tagged cells transferred into mice can easily be identified by using the rat anti-HA monclonal antibody.

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