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Product Information

Monoclonal Anti-Chicken IgY (IgG) (γ -chain specific)

Clone CG-106

Mouse Ascites Fluid

Product Number **C 7295**

Product Description

Monoclonal Anti-Chicken IgY (IgG) (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Purified Chicken IgY (IgG) was used as the immunogen. The isotype is determined using Sigma ImmunoType™ Kit (Product Code ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Product Code ISO-2).

Monoclonal Anti-Chicken IgY (gG) is specific for the heavy chain (γ -chain) of chicken IgY (IgG) from either serum or egg yolk. In studies done on immunoblots of denatured and reduced chicken IgY, the antibody localizes an epitope on the separated γ -chain. Using non-reduced, SDS-treated and heat-denatured chicken serum as an antigen in an immunoblot, the antibody shows specific staining of the intact IgY (IgG) molecule. By the immunoblot technique the monoclonal antibody is found to have no cross reactivity with chicken IgM and weak cross reactivity with turkey IgG. Monoclonal Anti-Chicken IgY (IgG) shows no cross reactivity with IgG from the following species: bovine, cat, cattle egret, crow, dog, dove, duck, goat, goose, guinea pig, hamster, human, horse, monkey (baboon, gibbon, rhesus), mouse, ostrich, pig, rabbit, rat, or sheep. Because this clone is specific for an epitope on the γ -chain of chicken IgG, this antibody can be used in conjunction with Mouse Monoclonal Anti-Chicken Light Chains, Clone CH-31 (Product No. C 7910). These two antibodies may serve as specific instruments in the studies of the immunoglobulin genes of chicken light and heavy chains.

Monoclonal Anti-Chicken IgY (IgG) (γ -chain specific) may be used for detection and localization of chicken serum or egg yolk IgG using a variety of immunological techniques. This reagent may serve as a highly specific instrument in poultry research and diagnostics as well as in the field of plant viruses which frequently uses the chicken as a host for antibody production.

Three immunoglobulin classes have been identified in the chicken; IgY (or IgG), IgM, and IgA. The immune response of chickens and chicken antibodies has been studied and used extensively because of the chicken's importance as a food source. Moreover, due to the greater evolutionary difference between mammals and the chicken, antibodies produced in chicken against mammalian antigens are directed against more antigenic determinants than the corresponding antibodies produced in other mammals. Antibodies produced in chicken have become a valuable alternative to antibodies raised in other animal species. Polyclonal antibodies to chicken IgY (IgG) may suffer from a lack of species specificity. Thus, in many instances such antibodies will also recognize non-related immunoglobulins that appear in the sample being tested, resulting in increased levels of background staining and false positives. To resolve this, an extensive adsorbing stage must be incorporated into the manufacturing process.

Reagent

The product is provided as ascites fluid with 0.1% sodium azide as a preservative.

Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C. For extended storage, the solution may be frozen in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

Product Profile

A minimum antibody titer of 1:1,000 is recommended by a direct ELISA using 10 µg/ml of chicken IgY (IgG) as the antigen coat.

In order to obtain the best results, it is recommended that each individual user determine their working dilution by titration assay.

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