

Mouse Anti-KLH Monoclonal Antibody

Cat. No. CAB-629M **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source Mouse

Immunogen Description

KLH(Keyhole Limpet Hemocyanin) is a copper containing oxygen carrier occurring freely dissolved in the hemolymph of many molluscs and arthropods. KLH is used extensively as a carrier protein in the production of antibodies for research, biotechnology and therapeutic applications. Haptens are substances with a low molecular weight such as peptides, small proteins and drug molecules that are generally not immunogenic and require the aid of a carrier protein to stimulate a response from the immune system in the form of antibody production. KLH is the most widely employed carrier proteins for this purpose. It is an effective carrier protein for several reasons. Its large size and numerous epitopes generate a substantial immune response, and abundance of lysine residues for coupling haptens, allows a high hapten:carrier protein ratio increasing the likelihood of generating hapten-specific antibodies. KLH may also be a challenging molecule to work with because of its propensity to aggregate and precipitate. Aggregates remain immunogenic, but limit the ability to conjugate haptens and are difficult to manipulate in the laboratory. A high quality KLH preparation with the clear opalescent blue color is the best indicator of KLH solubility. KLH is being tested as a therapeutic vaccine for a variety of cancers, including non-Hodgkins lymphoma, cutaneous melanoma, breast and bladder cancer. These vaccines use specific tumor-associated antigens (Haptens) conjugated to KLH to stimulate the body's immune system to generate anti-tumor immune responses

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	which can destroy tumor cells.
Immunogen	Recombinant KLH protein
Antibody Type	Mouse Monoclonal Antibody
Ig Type	Mouse IgG1
Formulation	0.2 µm filtered solution in PBS with 5% trehalose
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant KLH (Keyhole Limpet Hemocyanin). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Specificity	KLH or KLH conjugated protein, no cross-reactivity with human cell lysate (293 cell line) in WB and ELISA.
Western blot	This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect KLH in WB.
Direct ELISA	This antibody can be used at 0.5 - 1 µg/mL with the appropriate secondary reagents to detect KLH or KLH conjugated protein. The detection limit for KLH is approximately 0.078 ng/well
Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -70°C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.