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Mouse Anti-KLH antibody

SL0225M

Product Name	KLH
Chinese Name	血蓝蛋白抗体
Alias	Keyhole limpet hemocyanin (KLH); KLH 1 ; KLH1; Keyhole limpet hemocyanin A; KLH-A; Hemocyanin 1; hemocyanin A chain.
Research Area	immunology
Immunogen Species	Mouse
Clonality	Polyclonal
React Species	(predicted:Keyhole limpet hemocyanin (KLH))
Applications	WB=1:500-2000,ELISA=1:5000-10000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	800-900kDa
Form	Liquid
Concentration	1mg/ml
immunogen	KLH protein: full length
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	(predicted:Keyhole limpet hemocyanin (KLH))1M TBS(pH7.4) with 1% BSA, (predicted:Keyhole limpet hemocyanin (KLH))3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	Keyhole limpet hemocyanin is an extremely large, heterogeneous glycosylated protein consisting of subunits with a molecular weight of 350,000 and 390,000 in aggregates with molecular weights of 4,500,000-13,000,000. Each domain of a KLH subunit contains two copper

atoms that together bind a single oxygen molecule (O2). When oxygen is bound to hemocyanin, the molecule takes on a distinctive transparent, opalescent blue color. The KLH protein is potently immunogenic yet safe in humans and is therefore highly prized as a vaccine carrier protein. The large and highly glycosylated KLH protein cannot be reproduced synthetically. It is available only as a purified biological product from the Keyhole Limpet Megathura crenulata.
Keyhole limpet hemocyanin (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.[2] KLH is the most widely employed carrier proteins for this purpose. KLH 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. In addition, because KLH is derived from the limpet, a gastropod, it is phylogenetically distant from mammalian proteins, thus reducing false positives in immunologically based research techniques in mammalian model organisms. 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.

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