



GMP Grade Stellar KLH Products

PRODUCT FACT SHEET

Keyhole limpet hemocyanin (KLH) is a large copper-containing, immune stimulating protein found in the hemolymph of *Megathura crenulata* (Giant Keyhole Limpet). KLH has been widely used as an effective neoantigen for immune function testing due to its ability to induce a robust cellular and humoral immune response. Stellar Biotechnologies is the only KLH manufacturer with its own land-based aquaculture population of *Megathura crenulata* and using sustainable, environmentally sound processes. Our proprietary methods ensure that Stellar KLH™ production lots are consistently of the highest purity and potency.

Product Code	KLH-20M	KLH-20MV	KLH-05N
Product.....	Subunit KLH	Subunit KLH	High Molecular Weight KLH
Grade.....	GMP	GMP	GMP
Packaging	Millipore Mobius Bag	Type I Sterile Glass Vial	Millipore Mobius Bag
Protein Mass Per Unit ..	Custom	15mg	Custom
Concentration	18 - 22mg/mL	18 - 22mg/mL	4.5 – 5.5 mg/mL
Volume in Vial	N/A	≥ 0.75mL	N/A
Molecular Weight	> 400-600 kDa	> 400-600 kDa	4-8 MDa
Appearance	Clear to slightly hazy blue liquid	Clear to slightly hazy blue liquid	Clear to slightly hazy blue liquid
Formulation.....	Liquid in water for injection	Liquid in water for injection	Liquid in DPBS
Purity (SEC).....	≥90%	≥90%	≥95%
Purity (PAGE).....	≥90%	≥90%	N/A
pH.....	6.9 – 7.9	6.9 - 7.9	6.8 – 7.6
Endotoxin Level	≤ 5.0 Eu/mg Protein	≤ 5.0 Eu/mg Protein	≤ 7.0 Eu/mg Protein
Storage	2°C to 8°C Do Not Freeze	2°C to 8°C Do Not Freeze	2°C to 8°C Do Not Freeze

PRODUCT FEATURES

Material has confirmed absence of enterovirus, Hepatitis A, Hepatitis B¹, Hepatitis C¹, Norwalk-like virus, and Rotavirus and low residual DNA.
 Potency – Induce robust primary and secondary IgM/IgG immune response without adjuvant
 Traceability – From protein source to finished product
 Sustainability – Produced only using environmentally sound methods from Stellar’s aquaculture population of *Megathura crenulata*
 Supply – Scalable supply to meet customers’ long-term needs.
 For manufacturing or processing in the preparation of a new drug limited by Federal law to investigational use
¹Subunit KLH only