Hyperphage M13KO7ΔpIII

Description

Hyperphage M13KO7ΔpIII is a mutant of M13KO7, which contains no pIII. The hyperphage system has revolutionized the field of antibody engineering and drug discovery because it improves antibody presentation in phage display by increasing the number of antibodies displayed per phage particle (up to 5 vs. 0.01), compared to normal helper phages. The displayed antibodies on the phages can be used for various applications, such as identifying specific targets or in immune response or disease treatment related research. In cancer research, the hyperphage-packed library could be a tool to discover new tumor markers by panning against cellular surfaces.

Hyperphage Display

Hyperphage M13KO7ΔpIII carry a deletion in the pIII gene. They are generated by an E. coli packaging cell line producing functional pIII. The resulting hyperphages carry functional pIII on their surface but lack the pIII gene in their genome. These hyperphages can be used to infect bacteria with a phagemid library. Due to the resulting display phages carrying several copies of the antibody or peptide on its surface, panning efficiency is increased dramatically.

Hyperphage Benefits

Exceptional reproducibility: recombinant antibodies are produced in cell cultures or microorganisms, ensuring you get high reproducibility and consistent quality.

Future-proof supply: an animal free platform ensures your recombinant antibodies can be produced time and time again.

Fast production: benefit from a quicker production time in comparison to monoclonal or polyclonal antibody production.

Controlled conditions: ensures precise manipulation, prevents contamination, provides optimal growth, quality control and scalability.

Animal free: recombinant antibodies are produced in bacterial cultures, ensuring you an animal free antibody production guarantee.

Storing the Helper Phage

Recommends storing them at-80℃ with 50% Glycerol. As long as there is a -80℃ stock in the lab, the amplified lab prep can be stored at+4℃.