

Affinity Chromatography

Cellufine™ Sulfate

Cellufine Sulfate is an affinity chromatography resin designed for the purification, concentration, and depyrogenation of viruses, viral/microbial antigens, and heparin-binding proteins. It provides a safe and efficient alternative to traditional ultracentrifugation and density gradient methods.

► Ligand and Adsorption Characteristics

Ligand: Sulfate ester group

Support Matrix: Spherical cellulose beads

Particle Size: Approx. 40–130 µm

Gel Exclusion Limit: 3 kDa

Protein Binding Capacity: Lysozyme: >3 mg/mL, Hepatitis B Surface Antigen: 7 mg/mL

CIP Stability: Stable in 0.5 mol/L NaOH over 100 cycles, suitable for repeated use

▶ Key Benefits

- ·High affinity for a wide range of viruses and heparin-binding proteins
- Endotoxins do not bind, enabling rapid depyrogenation
- Autoclavable and chemically sterilizable
- •Resistant to compression, allowing high-speed processing in large columns
- •Gentle binding and elution conditions improve yield and product integrity

► Application Examples

- ✓ Purification of viruses such as rabies, influenza, Japanese encephalitis, and human coronavirus OC43
- ✓ Viral/microbial antigens including herpes simplex glycoproteins and hepatitis B surface antigen
- ✓ Used in vaccine production and clinical diagnostics

