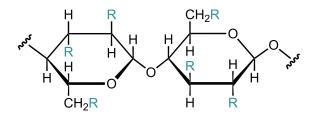
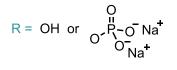
Affinity Chromatography

Cellufine™ Phosphate

Cellufine Phosphate is an affinity chromatography resin with phosphate groups as ligands. It offers high selectivity and stability, making it suitable for purifying nucleic acid-binding proteins, including enzymes used in mRNA production, even without an affinity tag.





Ligand and Adsorption Characteristics

Base Matrix: Cellulose
Ligand: Phosphate ester

Ligand Density: 0.3 – 0.8 meq/mL

Adsorption Capacity: ≥ 20 mg/mL-gel (lysozyme)

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

Purification Example of T7 RNA Polymerase

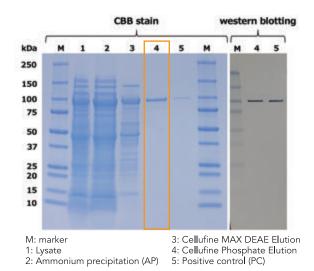
Two-step purification:

Crude purification with Cellufine MAX DEAE Affinity purification with Cellufine Phosphate

Enzyme Activity Recovery: 70.2%

Protein Recovery: 24.7%

SDS-PAGE analysis shows near single-band purity, indicating efficient removal of contaminants.





New High-Capacity Resin - Planned for release in November, 2025!

The new high-capacity Cellufine Phosphate offers over **9x** greater binding capacity for T7 RNA polymerase and over **7x** greater capacity for IgG compared to conventional products.

