

7.9 Experiment Report (A)

Experiment : Purification, Concentration and Testing of Proteins

I. Experimental purpose: The cultured S1 protein and RBD protein were purified, concentrated, and tested.

II. Experimental procedure:

1. Transfect the plasmid into 100ml B138 cells, add protein-free cell feed and VPA to increase protein expression on the second day;
2. Collect the cell supernatant after culturing for 5-6 days;
3. Add 20ml equilibration buffer (20mM Tris-HCl, pH8.0, 20mM imidazole, 500mM NaCl) buffered His·Bind nickel column, and the protein is bound to the nickel column through His tag;
4. Use 20 ml of washing buffer (20mM Tris-HCl, pH 8.0, 20mM imidazole, 500mM NaCl) to wash away unbound contaminants;
5. Then use 20 ml of elution buffer (20mM Tris-HCl, pH 8.0, 500mM imidazole, 500mM NaCl) to elute the protein and collect
6. The eluted protein is concentrated in a protein concentration tube and stored at -40°C.