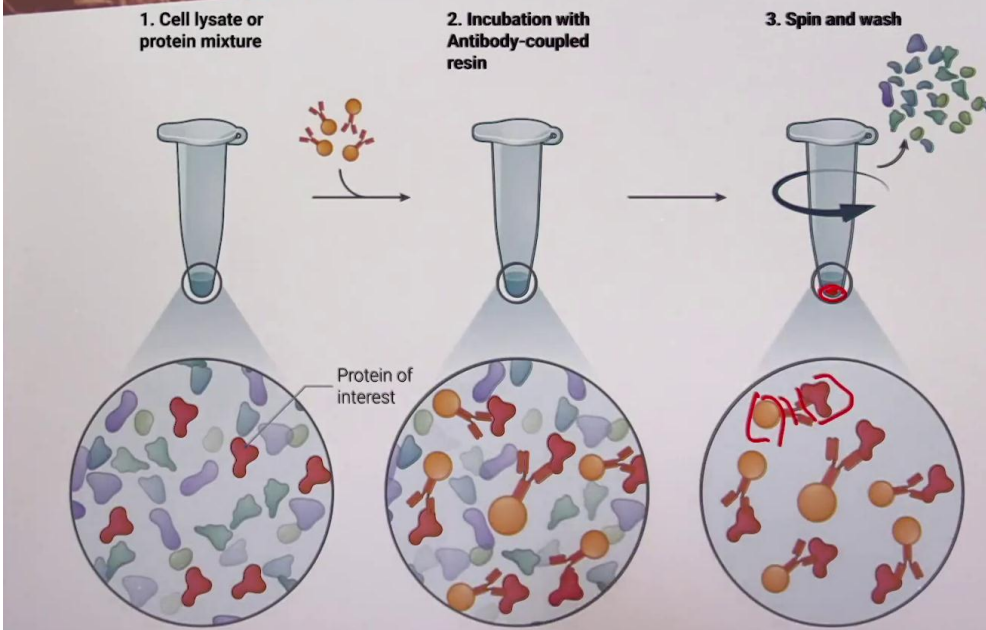


NEUROSCIENCE RECONSTRUCTED

Immunoprecipitation



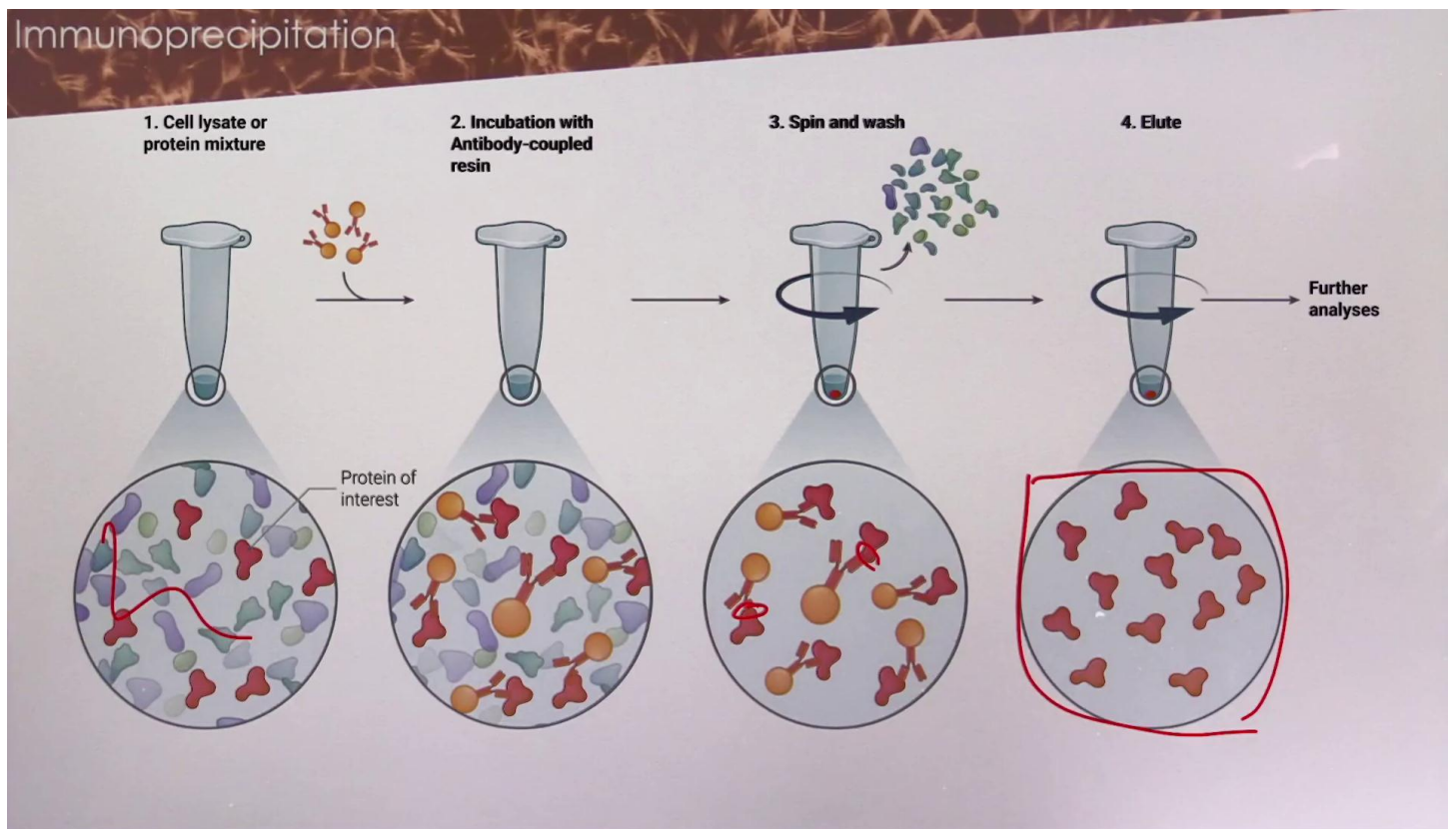
Let's discuss a bit what immunoprecipitation is. Typically, for immunoprecipitation, we are dealing with a cell lysate that contains proteins. The idea is that we want to isolate a specific protein of interest. The way it goes about is to use specific antibodies that usually, for example, monoclonal, also polyclonal in some cases, that have been specifically designed to recognise one of the proteins present in the pool. They will bind the protein of interest. Usually, those antibodies are actually not provided directly, but they are being covalently bound by some solid support, typically magnetic beads, or just simply polystyrene beads. Therefore, they can be separated either by centrifugation or by a magnetic support. They can be separated from the rest of the pool. They can be isolated, for example, at the bottom of the tube, the rest of the cell lysate that can be removed and several washes can be repeated until we get basically a pool of beads that is coated with the antibody and the specific protein of interest.

Notes

Summary



Immunoprecipitation



Eventually now, changing the condition of the buffer from one that is allowing the binding of the antibody to the epitope of the protein to one that is not allowing it, for example, with change of buffer composition of temperature of the pH, it's possible to determine the elution of the protein, and therefore the purification and the use of this purified pool of biomolecules that have been extracted and separated from the rest. This principle can be applied also to chromatin and to esters, in particular, in such a way that the process is performed while keeping the DNA on top of the ester. That's the key to bridge the ester modification to the sequence.

Notes

Summary

