



Antibody purification method based on porous polyprotein hydrogel OTT ID # 1524

APPLICATIONS

Protein purification, protein research, quantification of proteins, drug discovery, vaccine production, pharmaceuticals, affinity purification etc.

TARGET PROBLEMS

- In current antibody purification techniques, antibodies bind in a single layer on a surface of agarose beads reducing overall yield and increasing retention time.

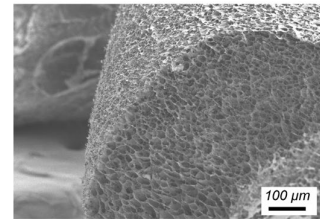
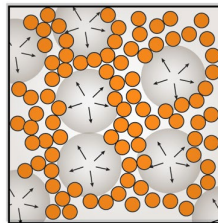
KEY FEATURES

- **Easy**- Straight forward process for making polyprotein-based porous hydrogel network.
- **Fast** – Purify proteins in 10 minutes
- **More efficient** – Captures 3X more antibody on a weight for weight basis due to increased surface area

TECHNOLOGY

Inventors at University of Wisconsin, Milwaukee (UWM) have developed a new class of protein hydrogels made from soluble proteins into a porous 3-dimensional stable network. This technology is fast and efficient without an increased cost.

This new method to produce polyprotein-based hydrogels with micron-sized pores facilitate their interaction with large particles and molecules, such as antibodies with increased active surface area.



Unlike regular methods, where the antibodies bind in a single layer on a surface of agarose beads, our method produces binding sites throughout the material. This method offers a much higher surface density of binding sites and provides improved retention time and yield over current antibody purification methods. These protein-based porous hydrogels can be attractive candidates for purification of research-based or therapeutic antibodies used for a broad range of targets in oncology, immunology, hematology and many more prevalent medical applications.

INTELLECTUAL PROPERTY

US Provisional Patent Pending

ABOUT THE INVENTOR(S)

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