Resource Summary Report

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Common Fund Protein Capture Reagents

RRID:SCR_006570
Type: Tool

Proper Citation

Common Fund Protein Capture Reagents (RRID:SCR_006570)

Resource Information

URL: http://commonfund.nih.gov/Proteincapture/

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Description: Program that is developing new resources and tools to understand the critical role the multitude of cellular proteins play in normal development and health as well as in disease. These resources will support a wide-range of research and clinical applications that will enable the isolation and tracking of proteins of interest and permit their use as diagnostic biomarkers of disease onset and progression. The program is being implemented in phases, with three Funding Opportunity Announcements (FOAs): * FOA 1: Antigen Production (RFA-RM-10-007) To produce human transcription factor antigens for making monoclonal antibodies or other affinity capture reagents; this effort is already underway. * FOA 2: Anti-Transcription Factor Antibodies Production (RFA-RM-10-017) To optimize and scale anti-transcription factor capture reagent production to develop a community antibody resource. * FOA 3: New Reagent Technology Development and Piloting (RFA-RM-10-018) To develop improvements in the reagent production pipeline with regard to quality, utility, cost, and production scalability. To understand what makes a cell function normally and what may go awry in disease, we need better tools and resources, such as renewable protein capture reagents and probes, to study how proteins work in isolation and how they interact with other proteins, carbohydrates, or DNA regions within a cell. Ideally, this resource would allow us to identify and isolate all proteins within cells, in their various forms the so called proteome to ensure broad application in research and clinical studies aimed at understanding, preventing, detecting and treating disease. Existing protein capture reagents, such monoclonal antibodies, have been developed for a number of protein targets, although these represent only a subset of all proteins comprising the human proteome. In addition, many monoclonal antibodies lack the desired level of specificity and do not reliably target only the protein of interest. This is particularly problematic given the multiple forms of any one protein and the broad range of protein types in the body. The Protein Capture Reagents Program is organized as a pilot program using transcription factors as a test case to examine the

feasibility and value of generating a community resource of low cost, renewable affinity reagents for all human proteins. The reagents must be specifically designed for high quality and broad experimental utility in order to meet the growing demands of biomedical researchers. Based on what is learned from these funding initiatives, the program may expand to a larger production effort to provide a broad community resource of human protein capture reagents.

Abbreviations: Protein Capture Reagents

Synonyms: Protein Capture Reagents Program, NIH Common Fund Protein Capture Reagents Program, Common Fund Protein Capture Reagents Program

Resource Type: portal, funding resource, topical portal, data or information resource

Keywords: protein, reagent, proteome, antigen, anti-transcription factor, antibody, protein capture, transcription factor

Funding:

Resource Name: Common Fund Protein Capture Reagents

Resource ID: SCR_006570

Alternate IDs: nlx_151642

Alternate URLs: https://proteincapture.org, https://proteincapture.org/reagent_portal/

Record Creation Time: 20220129T080236+0000

Record Last Update: 20250417T065248+0000

Ratings and Alerts

No rating or validation information has been found for Common Fund Protein Capture Reagents.

No alerts have been found for Common Fund Protein Capture Reagents.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 2 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF.

Stoevesandt O, et al. (2012) European and international collaboration in affinity proteomics. New biotechnology, 29(5), 511.

Manning CF, et al. (2012) Benefits and pitfalls of secondary antibodies: why choosing the right secondary is of primary importance. PloS one, 7(6), e38313.