

We take care of your protein

M-fold Biotech's researchers have many years of experience in protein purification. Not only do we know how to handle GPCRs, but we also have a track record in expressing and purifying a variety of soluble proteins in multi-milligram quantities, including monoclonal antibodies, recombinant scFvs, chemokines, arrestin and G protein alpha subunits.

For customers who want to outsource early DSP development up to the gram scale, we are a perfect fit: Well-equipped with standard chromatography instruments and experienced in all standard purification procedures, we will collaborate with you to develop methods that meet your standards and can be scaled up.

Equipment

- GE Healthcare Äkta™ Explorer, Purifier, Prime
- HPLC for SEC analysis
- SDS-PAGE and native electrophoresis systems
- External mass spectrometry, N-terminal sequencing, peptide mapping



Methods

- Affinity chromatography
- IEX
- IMAC
- SEC
- HIC
- Electrophoreses (SDS and native)
- Mass spectrometry and N-terminal sequencing (externally)
- UV and fluorescence spectroscopy
- Activity tests: radioligand binding, different types of cellular assays.

New purification technologies ?

Chromatographic procedures are inherently difficult to scale up, mostly due to non-linear hydrodynamic behaviour of columns and flow-through systems. In addition, chromatography material is usually expensive. Current research in DSP development seeks alternative methods that overcome these problems. One approach, although not yet widely used on industrial scale, is technical protein crystallization with the following potential advantages:

- Purification and polishing in a single step
- Non-expensive materials
- Batch process variables independent or linear with process scale

At M-fold Biotech we have the technical know-how and are fully equipped for protein crystallization trials. We offer proof-of principle studies that tell you whether your protein is crystallizable and what enrichment factor you can expect from such a process. If successful, we will help you in up-scaling as well.



Business proposal

We offer DSP development in two stages:

Stage 1: Small-scale purification:

Purification at small scale (up to 10 mg). Customer provides raw material (culture supernatant, cells), target specifications and all available physico-chemical information on target protein.

M-fold Biotech will send a detailed quotation for process development based on contract-research (fixed hourly rate) payments. Deliverables include detailed analytical results, a protein sample and a process overview showing the methods used.

Stage 2: Up-scaling and technology transfer:

In a second step, customer defines required improvements and target process scale. We will develop the process within our technical capabilities and finally transfer the full process at a mutually agreed stage with all application rights to the customer. In Stage 2, we will charge for the actual working time plus a milestone payment for the technology transfer.

Please don't hesitate to call if you have a specific DSP problem where we might help you. As a small company, we run a flexible business model and listen to your needs!

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