

# Custom-made recombinant proteins

We offer our design and production service of custom-made recombinant proteins. This service includes the initial design of the protein and its optimal production in *Escherichia coli* or in *Pichia pastoris* as heterologous expression systems.

## STUDY OF THE PROJECT

Study of the gene sequence, theoretical sequence analysis, selection of a heterologous expression system, selection of the optimal expression vector, design of the specific primers, codon optimization of the gene, etc.

## OPTIMIZATION OF EXPRESSION LEVELS

Screening and selection of induction conditions, expression and solubility, MCB and WCB stocks production, for reproducibility of future lots, etc.

## DOWNSTREAM PROCEDURE

Design of the complete process of purification of the target protein by using different chromatographic procedures, ultrafiltration, diafiltration, etc.

## QUALITY CONTROL

Purity, integrity, stability, macroaggregation and microaggregation (SEC), western blot analysis, Maldi-TOF and immunoassays (western blot, ELISA)

## PROTEIN DELIVERY

Storage in sterile labeled plastic vials at  $-80^{\circ}\text{C}$  until release. Shipped with dry ice as a refrigerant. Possibility of offering lyophilized protein

## DNA CONSTRUCTION

Amplification by PCR, clone of the target DNA in a selected expression vector, validation of the selected clone by sequencing and restriction analysis. Possibility of using different fusion tails and different secretion peptides

## UPSTREAM PROCEDURE

Obtention of the seed in batch by shaker and scale-up to bio-fermenters

## FORMULATION

Optimization of the formulation of the protein storage buffer based on the use that will be subsequently given to the required protein

## PROJECT INFORMATION

Keeping you constantly informed on the project progress



## Service detail:

- The price of the service guarantees 3 to 5 mg of protein.
- Purity greater than 95%, analysed by SDS-PAGE Coomassie-stained gels.
- The purified protein can be sent with dry ice (liquid form) or at room temperature (lyophilised form), depending on the destination country.
- A detailed data-sheet including the characteristics of the recombinant protein and QC performed will be provided.
- The protein will be available for further bulk orders at reduced price by increasing the required amounts.
- The custom-made service project will be divided into various work milestones. Each milestone will consist of a series of phases whose development will be explained in the quotation.

# Custom-made polyclonal antibodies

We offer our production service of custom-made polyclonal antibodies.



## ANTIBODY GENERATION

Immunization of a 10-week-old New Zealand white rabbit (female). Inoculations with a total of 5 mg of protein and bleeding at 3 months (approximately)

## ANTIBODY PURIFICATION

Purification of the antibody obtained from immune blood by affinity chromatography (protein G)

## VALIDATION AND QUALITY CONTROL

ELISA and Western blot titration using the protein inoculated to the rabbit

## PROJECT INFORMATION

Keeping you constantly informed on the project progress

## ANTIBODY DELIVERY

Storage in sterile labeled plastic vials at  $-80^{\circ}\text{C}$  until release. Shipped with dry ice as a refrigerant. Possibility of offering lyophilized antibody.

### Service detail:

- The price of the service guarantees up to 10 mg of antibody, aliquoted in 1 mg fractions.
- The purified antibody can be sent with dry ice (liquid form) or at room temperature (lyophilised form), depending on the destination country.
- A detailed data-sheet including the characteristics of the antibody and QC performed will be provided.
- The custom-made service project will be divided into various work milestones. Each milestone will consist of a series of phases whose development will be explained in the quotation.

