

Rabbit Custom Polyclonal Antibody Production

Our custom polyclonal antibody development package may be tailored to meet your specific project requirements.

1. Peptide synthesis

If required a supplied peptide sequence can be synthesized for use as the immunogen (approximately 15-20 mg at >75% purity depending upon sequence).

2. Peptide or small molecule conjugation

If the immunogen is a small molecule or peptide it may be necessary to conjugate it to a high molecular weight carrier protein e.g. CCH, KLH or BSA (2-3 mg) in order to elicit a good immune response. If required this service can be undertaken (subject to the chemical nature of the antigen) prior to the immunization protocol.

3. Protein antigen supply by the customer

A minimum of 2 mg protein/antigen at a concentration of at least 1 mg/ml is needed for immunizing 2 rabbits. If ELISA screening is required then an additional 1 mg will be needed. If affinity purification is requested then an additional 5 mg will be required. All customer supplied antigens must be accompanied by a COSHH assessment of any potential risks or hazards associated with handling or use of the antigen.

4. ELISA screening

If requested all bleeds from a 12 week project can be ELISA screened against the customers immunizing antigen, which must be supplied by the customer at the commencement of the project.

5. Serum purification

Protein A, Protein G, ammonium sulfate and peptide affinity purification (free N-terminus or terminal cysteine) are offered for purification of the immunoglobulin. Typical yield from 25 ml of affinity purified sera using protein G chromatography is 2-3 mg/ml purified antibody.

In order for us to satisfy Home Office requirements a brief justification for the project must be submitted prior to commencement.

Protocols & Additional Services

Project inclusive of

- Cost of 2 rabbits (minimum) plus housing for the term of the project
- Pre-immune bleed (2-3 ml) if requested
- 3-4 immunizations per rabbit
- Test bleeds (2-4 ml) after second and third immunization if requested
- Serum testing for characterization of animal response to immunogen using dot blotting after second and third immunization
- Terminal production bleed (50-80 ml)
- For larger scale production the project may be extended per rabbit on a monthly basis

Standard immunization protocol

Day 0	Pre-immune bleed if requested, first immunization (250 ug peptide, CFA)
Day 14	Second immunization (250 ug peptide, IFA)
Day 22	Test bleed if requested, serum testing by dot blotting
Day 46	Third immunization (300-600 ug peptide, IFA) depending upon test results
Day 54	Test bleed if requested, serum testing by dot blotting
Day 76	Fourth immunization (300-600 ug peptide, IFA) depending upon test results
*Day 84	Terminal production bleed

* We must receive customer instructions for continuation of project past Day 84.

Polyclonal antibody development is also available in goat and sheep. Please inquire for polyclonal antibody development in other species.

We also offer a custom antibody conjugation service providing an extensive range of markers including Alkaline Phosphatase (AP), Biotin, Horseradish Peroxidase (HRP), and a variety of fluorochromes to conjugate to the purified antibody.

To discuss your custom polyclonal antibody development project please contact us.

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