



Types of labeling services

We offer several types of antibody labeling protocols, depending on your needs:

- **Biotin**, is an ideal antibody labeling process when sensitive assays are needed
- **Fluorescein isothiocyanate or FITC**, is a type of fluorescein that is used for biological research for bioconjugate, primary antibody, and secondary antibody labeling
- **Tetramethylrhodamine or TRITC** is a bright orange-fluorescent dye with excitation ideally suited to the 532 nm laser line
- **Antibody conjugated with different probes and with new dye doped nanoparticles**
- **Horseradish Peroxidase, or HRP**, is commonly used to conjugate proteins in Western blots, immunohistochemistry and ELISA protocols



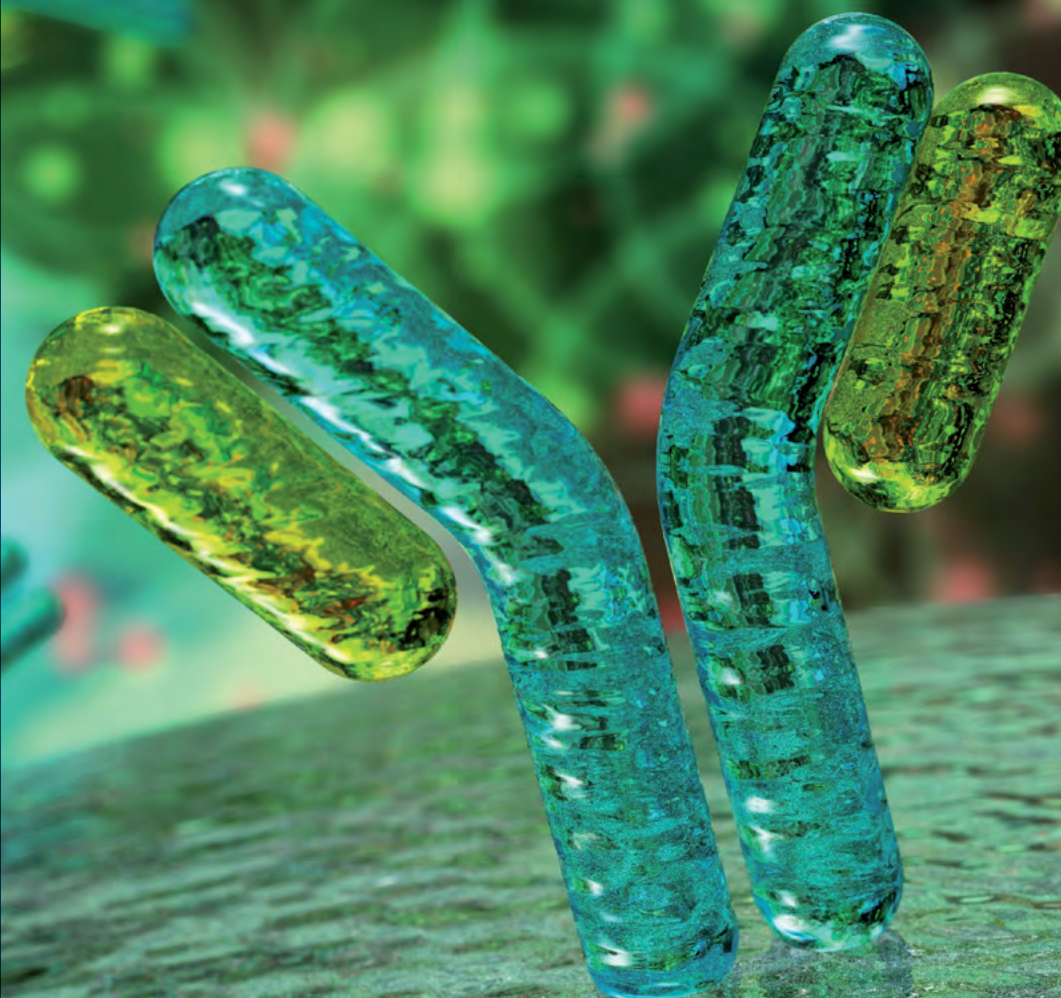
CONTACT US

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Custom Antibody Services



Your partner for antibody generation

Diatheva can provide customized services for polyclonal and monoclonal antibodies for your specific application.

A full service is available for all types of antibodies production, including antigen design, immunogen preparation, antibody development, antibody purification and characterization.

Leverage our expertise in antibody production.

Custom antibody categories

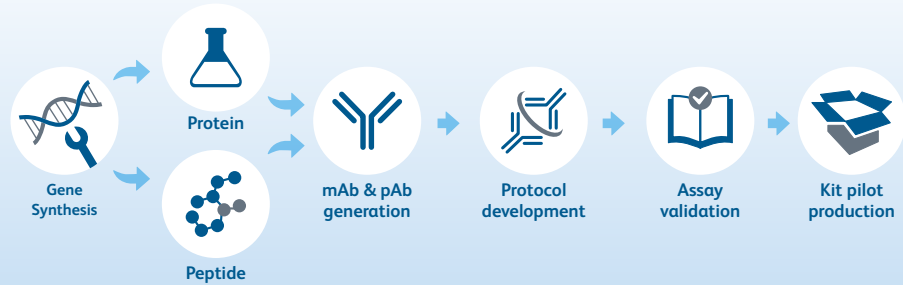
Diatheva combines the most extended range of services and the best experts for your customized antibodies production:

- **Mouse monoclonal antibodies**
- **Rabbit polyclonal antibodies**

Custom assay development

As well as antibody development, we can offer customized development services of ELISA tests (sandwich, competitive, direct and indirect). Our qualified process and assay development experts will customize products to meet your specific application requirements.

CUSTOM ASSAY DEVELOPMENT SERVICES: PROCESS DETAILS



Custom monoclonal antibody production services

We offer three different packages to produce your monoclonal antibodies:

- **PACKAGE 1: FROM PROTEIN TO MONOCLONAL ANTIBODY**
- **PACKAGE 2: FROM PEPTIDE TO MONOCLONAL ANTIBODY**
- **PACKAGE 3: FROM FULL LENGTH PROTEIN PRODUCTION TO MONOCLONAL ANTIBODY**

PACKAGE	PACKAGE CONTENTS	STARTING MATERIAL	GUARANTEES	DELIVERABLES	TIMELINE
1	<ul style="list-style-type: none">• Mice immunization• Hybridoma creation and selection• Antibody purification by antigen or protein A/G affinity chromatography• ELISA and Western Blotting characterization	Protein supplied by customer	WB and ELISA titre	<ul style="list-style-type: none">• 1-3 mg of purified monoclonal antibody	4 months
2	<ul style="list-style-type: none">• Peptide synthesis & KLH conjugation• Mice immunization• Hybridoma creation and selection• Antibody purification by antigen or protein A/G affinity chromatography• ELISA and Western Blotting characterization	Peptide sequence provided by customer (1 peptide & peptide-KLH conjugation)	WB and ELISA titre	<ul style="list-style-type: none">• 1-3 mg of purified monoclonal antibody• 3 mg of peptide	3-4 months
3	<ul style="list-style-type: none">• Gene synthesis and subcloning• Protein expression and purification• Mice immunization• Hybridoma creation and selection• Antibody purification by antigen or protein A/G affinity chromatography• ELISA and Western Blotting characterization	Full length protein sequence provided by customer (5 mg protein, ≥90 % of purity)	WB and ELISA titre	<ul style="list-style-type: none">• 1-3 mg of recombinant antigen• 1-3 mg of purified monoclonal antibody	6 months

Additional services

- Antigen sequence analysis
- Choice of the peptides/antigens: immunoreactive epitopes analysis
- Polyclonal antibody fragmentation service: Fab, Fc and F(ab')₂ fragments
- Master cell bank of hybridoma cells: characterization and storage
- Epitope mapping: identification of the binding site of the antibody on its target
- Mycoplasma: analysis of mycoplasma strains by luminescence reaction
- Endotoxin: quantitative detection of LPS contents

PRODUCTION PROCESS



Antigen design
Peptide synthesis, gene synthesis & protein production



Immunization
Immunization of mice with our optimized proprietary protocol



Cell fusion
Collection of the splenocytes and fusions with a myeloma cell line



Hybridoma selection and screening
• Hybrid cells selection (HAT selection)
• Culture supernatant screening vs. target antigen (ELISA screening)



Isolation and selection of the best monoclones
• Isolation of monoclones by limiting dilution
• Expansion and screening of the monoclones by ELISA or in target application



Additional services



Custom assay development

Custom polyclonal antibody production services

We offer three different packages to produce your polyclonal antibodies:

- **PACKAGE 1: FROM PROTEIN TO POLYCLONAL ANTIBODY**
- **PACKAGE 2: FROM PEPTIDE TO POLYCLONAL ANTIBODY**
- **PACKAGE 3: FROM FULL LENGTH PROTEIN PRODUCTION TO POLYCLONAL ANTIBODY**

PACKAGE	PACKAGE CONTENTS	STARTING MATERIAL	GUARANTEES	DELIVERABLES	TIMELINE
1	<ul style="list-style-type: none">• Rabbits immunization• Serum titration• Antibody purification by antigen or protein A/G affinity chromatography• ELISA and Western Blotting characterization	Protein supplied by customer	ELISA titre	<ul style="list-style-type: none">• 15-25 mg of purified antibodies• Immune serum, 1 ml/rabbit• Pre-immune serum, 1 ml rabbit	2-3 months
2	<ul style="list-style-type: none">• Peptide synthesis & KLH conjugation• Rabbits immunization• Serum titration• Antibody purification by antigen or protein A/G affinity chromatography• ELISA and Western Blotting characterization	Peptide sequence provided by customer (1 peptide & peptide-KLH conjugation)	ELISA titre	<ul style="list-style-type: none">• 1-3 mg of purified antibodies• Immune serum, 1 ml/rabbit• Pre-immune serum, 1 ml/rabbit• 3 mg of peptide	3-4 months
3	<ul style="list-style-type: none">• Gene synthesis and subcloning• Protein expression and purification• Rabbits immunization• Serum titration• Antibody purification by antigen or protein A/G affinity chromatography• ELISA and Western Blotting characterization	Full length protein sequence provided by customer (5 mg protein, ≥90 % of purity)	ELISA titre	<ul style="list-style-type: none">• 1-3 mg of purified antibodies• 1 mg protein, >90 % of purity	4-5 months

Additional services

- Antigen sequence analysis
- Choice of the peptides/antigens: immunoreactive epitopes analysis
- Polyclonal antibody fragmentation service: Fab, Fc and F(ab')₂ fragments

PRODUCTION PROCESS



Antigen design
Definition of the antigen:
• Protein design
• Peptide design



Antigen production
Protein production in an expression system of your choice



Immunization
Immunization of rabbits with our optimized proprietary protocol



Antibody testing
Titration by ELISA



Serum purification and antibody characterization
• Purification against protein A or protein G
• Purification against antigen
• Antibody characterization



Additional services



Custom assay development