

SERVICES



Custom Antibody Production & Preparation

Our service suitable
to your requirements.



**Seramun
Diagnostica GmbH**
Spreenhagener Str. 1
15754 Heidesee
GERMANY
Tel: +49 33767 791-10
Fax: +49 33767 791-99
e-mail: info@seramun.com
www.seramun.com

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Customized Polyclonal Antibody Production

DEVELOPMENT OF HIGH AFFINITY POLYCLONAL ANTIBODIES BY A SPECIAL PROTOCOL AND PROCEDURE

Procedure

1. Pre-bleed
 - 5 ml / rabbit
 - 25 ml / sheep
2. Basic injection
3. Booster injections (three times for basic package)
4. Production bleed (hyperimmune serum 1)
 - 20–25 ml / rabbit
 - 150–200 ml / sheep
5. ELISA titer testing of preimmune serum in comparison to hyperimmune serum 1
6. Shipment of preimmune serum and hyperimmune serum 1
7. Customer testing and decision for:



Time schedule

- Week 1: • Preimmune serum
• Basic injection
- Week 4–8: • Booster injections (1–3)
- Week 9: • Hyperimmune serum 1
- Week 10: • ELISA titer testing and shipment of serum

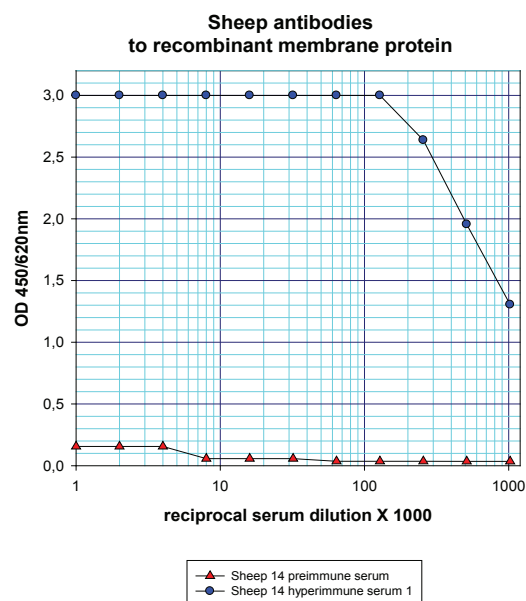
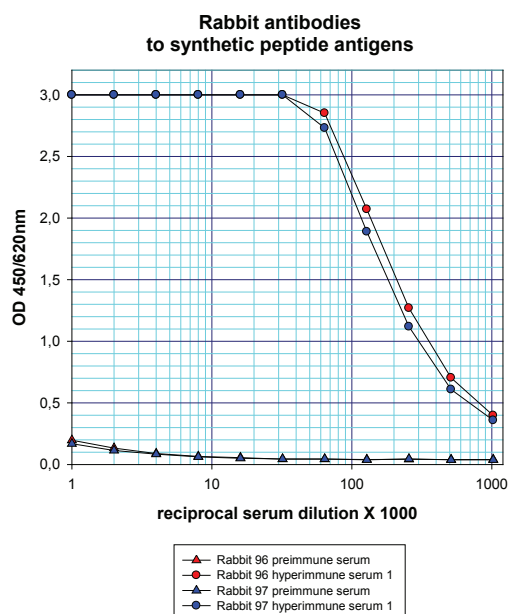
Quality control

Comparative titration of preimmune serum and hyperimmune serum 1 according to a standardized solid-phase ELISA protocol.

Test principle

- Solid-phase adsorbed antigen
- Serum incubation 60 min / 37 °C
- Conjugate incubation 60 min / 37 °C
- Substrate reaction 10 min / 20–25 °C
- Measurement at 450 / 620 nm wavelength

Test example



Customized Monoclonal Antibody Production

DEVELOPMENT OF MURINE HYBRIDOMA CLONES FOR PRODUCTION OF MONOCLONAL ANTIBODIES FOLLOWS A STEP BY STEP PROTOCOL WITH THE POSSIBILITY OF PROJECT TERMINATION AT ANY STEP OF THE DEVELOPMENT

Procedure

Step Protocol

1. Immunization of 3 mice and bleed for control of antibody titer by solid phase ELISA;
selection of one mouse for cell fusion
2. PEG mediated cell fusion of mouse splenocytes with mouse myeloma cells (SP2/0-Ag14), screening for hybridoma growth and antibody production
3. Hybridoma selection, Subcloning of 3 selected clones by limiting dilution (3X per clone), propagation and cryoconservation (5 ampoules per clone)
4. Customer decision for:



Time schedule



Step 1: 12–14 weeks

Step 2: 2–4 weeks

Step 3: 4–6 weeks

Additional service

Mycoplasma testing by PCR

Determination of antibody isotype and IgG subclasses by ELISA

IgG quantification by ELISA

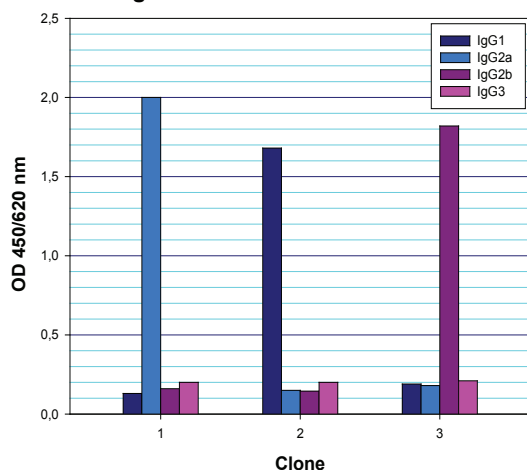
Antibody production

Antibody purification

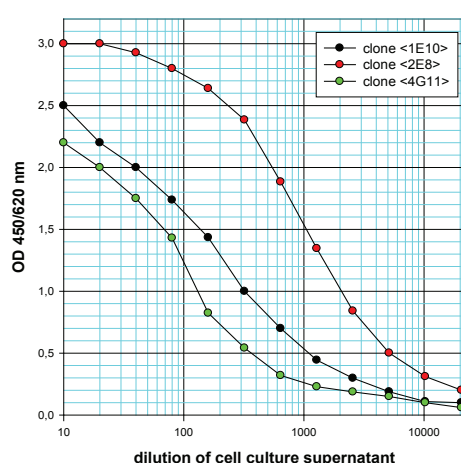
Antibody conjugation

Test example

IgG subclass determination



Reactivity testing after subcloning



Antibody Purification and Conjugation

OUR SERVICE IS BASED ON LONG TIME OF EXPERIENCE IN ANTIBODY PURIFICATION AND LABELLING FOR DEVELOPMENT OF IMMUNOASSAYS IN THE FIELD OF RESEARCH OR IN-VITRO DIAGNOSTICS

Antibody purification

Purification of polyclonal antibodies from hyperimmune sera by:

- Combination of salt precipitation and ion exchange chromatography or affinity chromatography on Protein A-Sepharose with FPLC. Removal of cross reactive antibodies and antibodies emerged by impurities of the antigen by negative immunoadsorption chromatography
- Isolation of specific antibodies from the IgG fraction of hyperimmune sera by immunoadsorption chromatography with insolubilized antigen
- Purification of monoclonal antibodies from culture supernatant by affinity chromatography on Protein A- or G-Sepharose

Analytcs

Purified antibodies are analysed by SDS Polyacrylamid Gel Electrophoresis and titration in solid phase ELISA; Antibody conjugates are analysed by Solid phase ELISA

Antibody conjugation

We label your purified antibody with

HRP (RZ ≥ 3 ; activity > 250 U/mg)
Modified protocol of Wilson and Nakane (1978); molar ratio of 1:4

AP (recombinant, activity > 5000 U/mg),
molar ratio 1:4

N-hydroxysuccinimido-Biotin
Modified protocol of Wilchek and Bayer (1990); molar ratio 1:30

Fluoresceinisothiocyanat (Isomer I)
Modified protocol of Mohr (1991);
molar ratio 1:8;
determination of F/P-ratio by photometry (usually 2.5–5.0)

Costs

Please contact info@seramun.com for a detailed quotation.

Example:

affinity purified anti human IgM (goat)

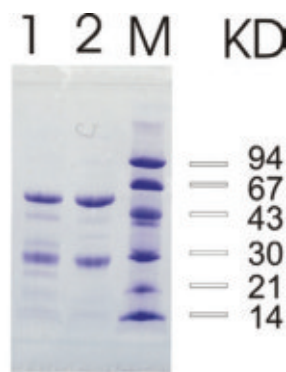
Heavy chain, 50 kD

Light chain, 25 kD

1,2: a-human-IgM

M: molecular weight marker

KD: molecular weight



Reactivity of affinity purified goat anti-human-IgM with solid-phase adsorbed human-IgG and human-IgM resp.

