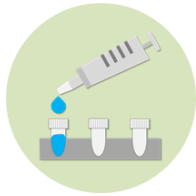


Dauids Biotechnology News

High Quality directly from the manufacturer established 1996 VOLUME 23 • NUMBER 72 • 2-2020



Antigen
Preparation



Immunization
& TestBleed



Antigen
Selection



Cell Services &
RNA Isolation



Antibody
Delivery

ANTIBODIES DIRECTLY FROM THE MANUFACTURER

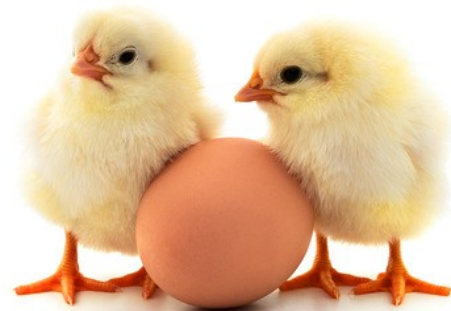
Dauids is experienced in antibody production for more than 20 years. The production of your antibodies is performed in Germany. With our own animal facility, we ensure animal-friendly antibodies. Our optimized antibody development, production and purification is reflected in good prices and high quality.

FROM YOUR ANTIGEN TO YOUR ANTIBODY

Getting the best antibody for your applications is easy. After you choose the best antigen with the help of our scientists, we prepare or synthesize your antigen for antibody production.

The immunization in rabbit, chicken, mice, rats or guinea pigs is performed with the best know-how and optimized for highest titers.

After the purification to receive specific antibodies, the final antibodies are delivered to you and you can start with your projects.



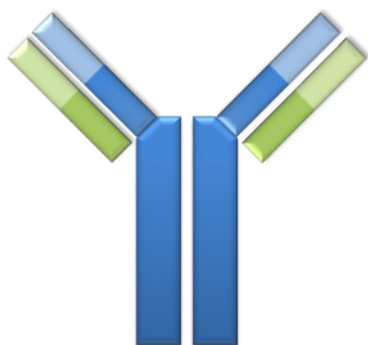
HIGH FLEXIBILITY

Our animal facility in Germany ensures highest standards and customizability. Beyond the Well-Established 63-day or our popular SuperFast 28-day program, you can use your own immunization schedule to receive the best antibodies.

All animals are kept in our own animal lab. This leads to the advantage that additional services like test bleeds, immunizations or the isolation of cells from immunized animals are performed immediately.

Further our RNA services are isolated shortly after taking the cells from spleen, bone marrow, PBMC or lymph nodes. This ensures superior RNA quality.

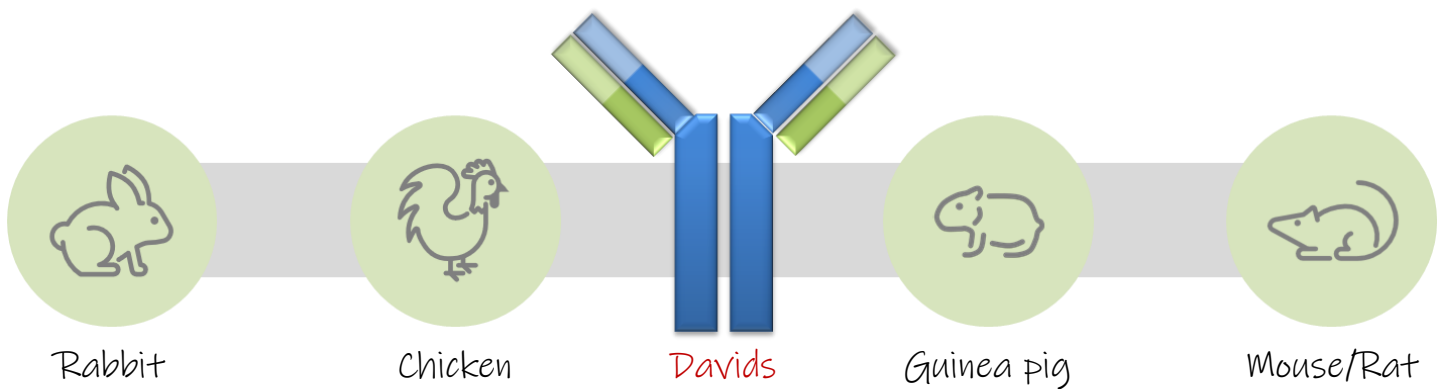
Best antibodies can be achieved with individual antigen preparations: Conjugation to strong carriers for better antigenicity of small antigens. The introduction of toxic antigens or DNA in liposomes. The preparation of cells and virus particles for the best presentation of the antigen to the immune system.



Your Custom Antibodies

High Quality directly from the manufacturer since 1996

www.dauids-bio.com



Custom Vaccination Projects

Davids performs your immunization and vaccination projects. The immunization of mice, rabbits, chicken, rats or guinea pigs is carried out in Germany with animal friendly methods and well-trained employees.

Choose your group size for best results to receive the amount of antisera, test bleeds, organs and/or cells from immunized animals you need. Each group from your project can be handled differently in mind with parameters, type of antigen, injection routes or immunization schedule according to animal welfare standards.

Detailed protocols with ELISA titer development graphs, general information on the immunization methods and scientific data are available on request. In all other cases our standard protocol covers the most important information.

Peptide Antibodies

Use peptide antibodies, when your antigen is hard to produce, or from proteins you only know the sequence from.

Our scientists assist you to choose peptides that represent your protein for the antibody production.

Davids Sequence Analyzer predicts the antigenicity (indicator on immune response), epitopes (probability of inducing B-cells to produce specific antibodies) and solubility. The solubility is an indicator if the sequence is on the surface of the protein and thus reachable from the antibody.

Quality Control & Conjugation

Peptides are quality controlled by HPLC and MS to ensure reliable results. Prior to immunization the peptide is conjugated to a carrier like KLH, BSA or Ovalbumin to improve the antigenicity of small molecules. You receive an aliquot of the synthesized peptide for your own applications.

Are two peptides better than one?

We recommend to immunize one animal with a mixture of two peptides derived from one protein. This is cost efficient and animal-friendly. The purification of the antiserum is done with each peptide separately and you receive one antibody fraction for each peptide.

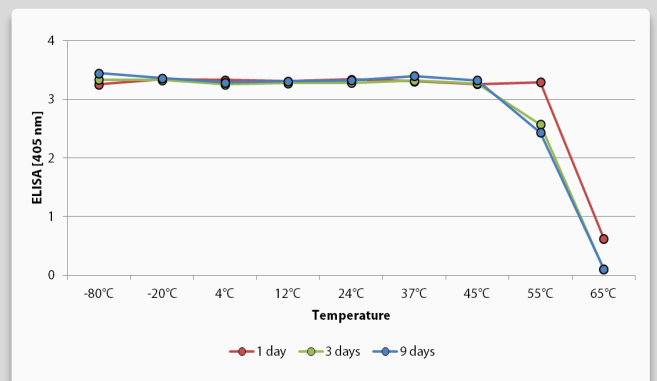
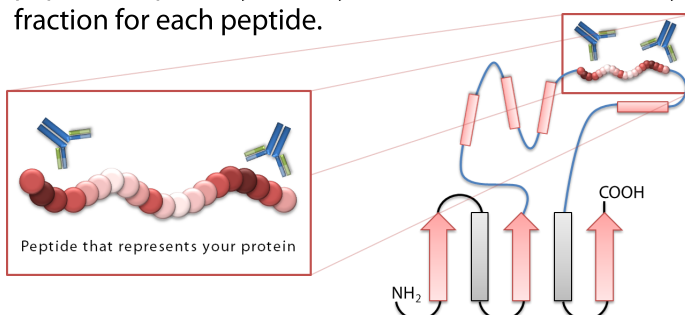


Figure 1 Antibody Storage: Detection of antigen in ELISA after the incubation of the antibody for 1, 3 and 9 days at different temperatures.

The stability of antibodies at 2 - 8°C is good. Most antibodies remain activity even when they are kept at 40°C for more than 9 days (figure 1).

In contrast, freezing/thawing cycles can lead to a loss of antibody activity. For this reason we recommend to store antibodies at 4°C first. Determine with a small aliquot if your antibodies remain activity after one freezing/thawing cycle, for long time storage. Freeze the antibodies in aliquots and thaw each aliquot

Cell Services

Cells from immunized animals derived from spleen, bone marrow, lymph nodes or PBMC are used for the development of monoclonal antibodies, RNA extraction, high-throughput screening and the vaccine development. The protocols can be adapted to your special demands.

Preparation of primary cells and isolation of RNA immediately after cell preparation leads to best results. Our lab is directly connected to our animal facility, hence the cell isolation is performed straight away to receive strong viable cells and a maximum of RNA.

Monoclonal Development

Development of your own hybridoma cell to produce your monoclonal antibodies from any kind of antigen. Order each step separately or use the whole program.



Immunization

Step 1: the immunization is done with mice using multiple antigen concentrations. The animal with the best titer is used for the next steps (Figure 2).



Fusion

Step 2/3: The mouse with the best titer receives a final immunization to boost the antibody producing cells. Spleen cells are isolated and the fusion is performed with myeloma cells. Resulting hybridoma are seeded in selection medium.



Screening

Step 4: Screening of all fusion cells with your provided antigen. Screening with multiple antigens is available. Best clones are isolated and cryo-conserved. You receive a small aliquot of purified antibodies, cells and a screening protocol.



Production

Our combined production and purification service of monoclonal antibodies from your hybridoma are performed in bioreactors or in spinner flasks. The production range is about 5 mg to 10 000 mg or even more with high yield cell lines.

Send your own hybridoma cell line for production and purification. As an alternative, use our monoclonal antibody development service to create a hybridoma. Purification of IgG and IgM from different species like mouse, rat or guinea pig are available.

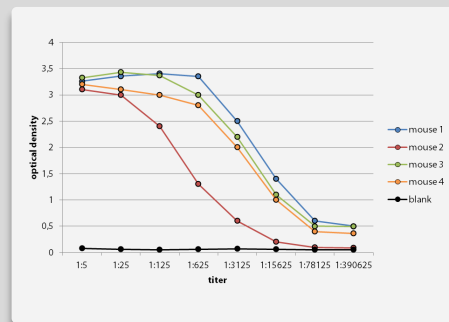


Figure 2: Titer determination after 5 immunizations. Increased antigen concentrations from mouse 1 to mouse 4.

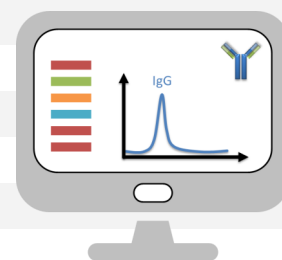
Each antigen is different. For this reason, Davids uses multiple immunization strategies to obtain the highest titers for each antigen. Different concentrations, adaptive immunization schedules and titer optimization with conjugations are performed during the immunization step to get the best possible titer and antibodies from each antigen.

Receive only what you need

You want to perform the hybridoma development in your lab and you only need to find a lab that performs the immunizations for you? We can perform the immunizations according to your immunization schedule. You receive the cryo-conserved spleen cells or whole organs and perform the fusion in your lab. Antiserum from mice and titer determinations during the immunization step are included. So we can adapt the immunization protocol during the project to optimize the antibody production.

Antibody Processing & QC

- Sterile filtration
- Endotoxin Removal
- Buffer Exchange
- Fragmentation
- Labeling / Conjugation
- SDS-PAGE
- Size-Exclusion-Chromatography
- Storage



Order Process

Receive your offer for your antibody project now. Write us an email with your details: info@davids-bio.com

When you already have your offer or when you want to use our order forms, which are available online, you can send us your antigens and include a copy of your offer or the order form.



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Imprint

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Publisher: Dr. M. W. Davids

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Get your Antibody Offer Now: info@davids-bio.com

CAT.NO	DESCRIPTION	PRICES VALID UNTIL 01-01-2021	PRICE IN EURO
POLYCLONAL ANTIBODIES			
A053	One rabbit, 63 day protocol, 40 - 90 ml antiserum		360
A054	Two rabbits, 63-day protocol, 2 x 40 - 90 ml antiserum		650
A055	SuperFast: One rabbit, 28-day protocol, 40 - 90 ml antiserum		395
A061	Phosphospecific: Peptides, 2 rabbits, purification, depletion		1895
A001	One hen, including Prepl purification of 10 immune eggs		395
R007	Antigen Specific Affinity Purification incl. matrix production: 1 antiserum: 10 - 60 ml		230
R008	ProteinA Purification: 1 antiserum: 10 - 60 ml		230
MONOCLONAL ANTIBODIES			
M001	Step1: Immunization of 4 mice and ELISA determination		695
M002	Step2: Isolation of spleen cells and cryo-conservation		172
M003	Step3: Fusion of spleen cells/lymphocytes with myeloma cells		450
M004	Step4: Screening and isolation of positive clones		2100
M005	Step5: Cloning by limited dilution. One clone		595
M301-010	Monoclonal Antibody Production & Purification: 10 mg		354
M301-100	Monoclonal Antibody Production & Purification: 100 mg		1849
ANTIGEN SYNTHESIS & PREPARATION			
P101	Peptide synthesis and conjugation: One Peptide up to 20 amino acids, 15 mg, >70% purity		330
P102	Peptide synthesis and conjugation: Two Peptides up to 20 amino acids, 15 mg, >70% purity		595
A703	SDS-Gel Preparation for Immunization		86
CELL SERVICES			
N103	Spleen cell isolation from one rabbit or chicken		195
N401	Lymph node cell isolation from one rabbit or chicken		195
T901	RNA isolation from up to 1 x 10 ⁸ cells		295
<i>Prices are indicated in EURO without VAT and excl. shipping costs (39 EURO). EU orders: tax free (reverse charge art196MwStSystRL).</i>			