

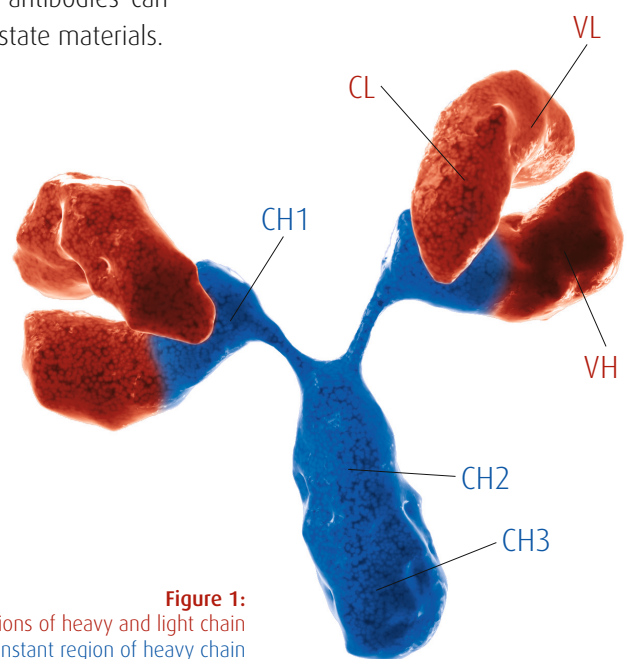
# SERION antibodies

## Humanized Monoclonal Antibodies as a Synthetic Serum Alternative

The reagents used in diagnostic tests are one of the most fundamental and critical key factors to guarantee reliable and high performing assays. Characterized disease state sera are substantial raw materials for the production of **calibrators, standards, positive and negative controls**. However, a constant supply with disease state sera is complicated and cannot be guaranteed. As a highly reliable and readily available alternative to human serum, SERION Immunologics offers **humanized monoclonal antibodies**.

The performance of these monoclonal antibodies, in comparison to human disease state sera, has been tested extensively, showing that the antibodies behave similar to sera. Therefore, they can be optimally used as calibrators, controls and standards in assay development and manufacturing. SERION antibodies have a high affinity and specificity for IgM, IgG or IgA and can be manufactured reproducibly in large scale. Thus, an unlimited access to antibodies with adjustable concentrations and high specificity becomes reality. Reproduction of standardized monoclonal antibodies can be performed at any time, what makes you independent from disease state materials.

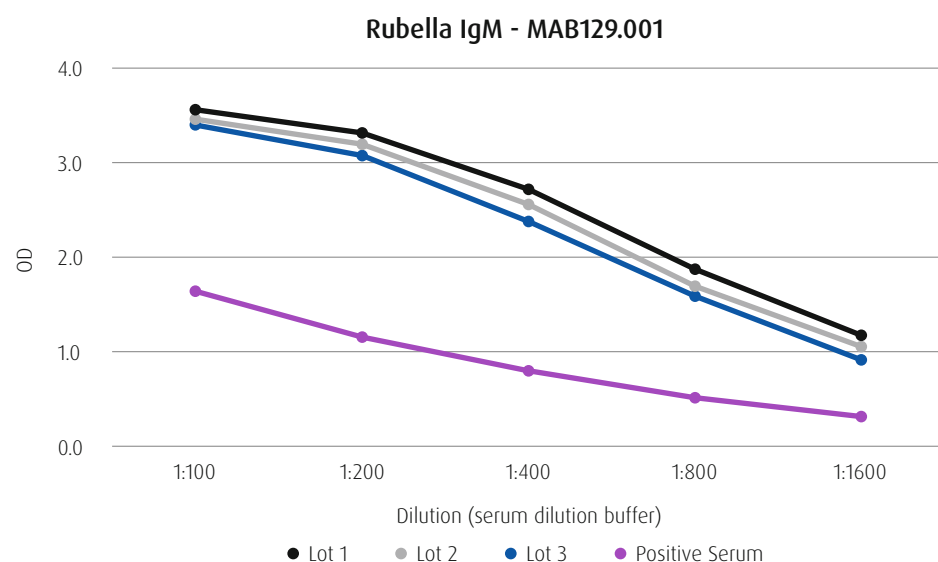
- High affinity
- High specificity
- Industrial batch sizes
- Constant availability
- Constant quality & performance



**Figure 1:**  
VH/VL/CL = Mouse constant and variable regions of heavy and light chain  
CH1/CH2/CH3 = Human constant region of heavy chain

## Technology

SERION antibodies are produced in transgenic mice by replacing the mouse sequence of the heavy chain constant region (IgM, IgG or IgA loci) by the corresponding human sequence. After immunization with the antigen of interest, generated antibody clones are cultivated by standard hybridoma techniques. These consist of the human constant region of the heavy chain, mouse variable region of the heavy chain and mouse light chain. The human constant region of the heavy chain can be directly recognized by the anti-human conjugate, which is used in numerous *in vitro* diagnostic assays.



**Figure 2:** The performance of the monoclonal antibodies was analyzed by ELISA. The figure shows exemplarily the signals using three lots of the Anti-Rubella antibody (MAB129.001) in different dilutions, compared to the signal of a positive control serum.

## Products

Pathogen Specificity	Antibody Class	Clone	Order No.
Anti-Chlamydia pneumoniae	IgM	G12B2	MAB1371.001
Anti-Cytomegalovirus (CMV)	IgM	Z11E4F7	MAB109.001
Anti-Cytomegalovirus (CMV)	IgM	Z3A3B8	MAB109.002
Anti-Dengue Virus	IgM	V11F8H3	MAB114.001
Anti-Epstein-Barr Virus (EBV) VCA P18	IgM	A12F10	MAB1361.001
Anti-Herpes Simplex Virus 1/2 (HSV-1/2)	IgM	K11A12D11	MAB105.001
Anti-Measles Virus	IgM	P5H6	MAB102.001
Anti-Mumps Virus	IgM	F11E4A7	MAB103.001
Anti-Mumps Virus	IgM	F19B9A5	MAB103.002
Anti-Mycoplasma pneumoniae	IgM	NA15F4A12	MAB127.001
Anti-Rubella Virus	IgM	B16B11F8	MAB129.001
Anti-Rubella Virus	IgM	A7A11H3	MAB129.002
Anti-Toxoplasma gondii	IgM	A13H1E4	MAB110.001
Anti-Varicella Zoster Virus (VZV)	IgM	D30B3D1	MAB104.001
Anti-Varicella Zoster Virus (VZV)	IgM	D20F3C7	MAB104.002
Anti-Zika Virus	IgM	JA10E10	MAB149.001

0.5 mL test samples can be offered free of charge at any time.

Further antibodies, e.g. *Borrelia burgdorferi* IgM and *Toxoplasma gondii* IgG, are under development. If you need another monoclonal antibody, please contact us. Customer-specific development is possible at any time.

a cooperation with



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