



# SERION antibodies

## Humanized Monoclonal Antibodies as a Synthetic Serum Alternative

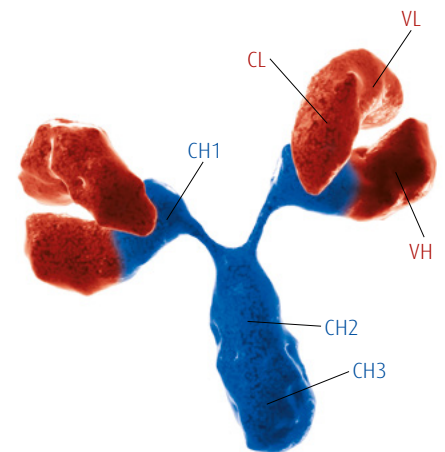
The reagents used in diagnostic tests are one of the most fundamental and critical key factors to guarantee reliable and high performing assays. Characterized disease state sera are substantial raw materials for the production of **calibrators, standards, positive and negative controls**. However, a 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

### Technology

SERION antibodies are produced in transgenic mice by replacing the mouse sequence of the heavy chain constant region (IgM, IgG or IgA loci) with 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 1:**  
VH/VL/CL = Mouse constant and variable regions of heavy and light chain  
CH1/CH2/CH3 = Human constant region of heavy chain

The monoclonal antibodies are offered in two different matrices. The original product line is provided as a cell culture supernatant packaged in 1 mL up to 1 L quantities. The new generation is available in IgG free and delipidized human serum matrix with 100 µg up to 25 mg packaging sizes. Production lots of the new generation are usually offered with a concentration between 100 µg/mL and 150 µg/mL.

### SERION antibodies in cell culture supernatant

Pathogen Specificity	Antibody Class	Clone	Order No.
Anti-Chlamydia pneumoniae	IgM	G12B2	MAB1371.001
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

Test samples can be offered free of charge.

### SERION antibodies in human matrix

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

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Further antibodies are under development. If you need another monoclonal antibody, please contact us. Customer-specific development is possible as well.

a cooperation with

