

Cell Control Arrays

Quality control



ZYTOMED[®]
SYSTEMS

Cell Control Arrays (CCA)

Suitable for immunohistochemistry, *in-situ*-hybridization and special stainings

Cell Control Arrays (CCA) are designed for the qualitative control of immunohistochemical (IHC) staining, *in-situ*-hybridization (ISH) and special staining. In addition to entire FFPE blocks, in which cell and tissue punches are homogeneously melted with the surrounding paraffin using a patented method, Zytomed Systems also offers individual slide sets. Control blocks can be cut according to standard procedures and mounted on coated slides. A core

of myocardial tissue serves as an easy orientation during mounting and microscopy. Each block is around 5 mm high and allows a yield of around 150 sections. Depending on usage and FFPE block, up to 350 sections are possible. The small size of the slices enables simultaneous mounting of patient sample and control material on the same slide (On-slide control).



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Zytomed offers the following arrays:

- ▶ The **Cell Control Array ALK (IHC)** contains one core of ALK positive cells and one core of ALK negative cells. It is suitable as qualitative control for immunohistochemical stains on ALK-positive tissues. RNA can be extracted and gene fusions as e. g. EML4-ALK (E13;A20) can be detected using RT-PCR.
- ▶ The **Cell Control Array Receptor** contains 4 cores of breast carcinoma cell lines. They show different expression levels of estrogen receptor (ER), progesterone receptor (PR) and HER2 (ERBB2). Thus, a differentiation between high and low staining intensity is possible, indicating the sensitivity of your stains. The system is suitable for immunohistochemistry and *in-situ*-hybridization.
- ▶ The **Cell Control Array Virus** is designed for the qualitative control of immunohistochemical staining and *in-situ*-hybridization of virus infected tissue. The paraffine block contains cell line cores of CMV, HSV type 1 and type 2, EBV and Polyomavirus/SV40 infected cell lines.
- ▶ The **Cell Control Array Bacteria plus Fungi** contains 4 cores of different germs and fungi. These are *Mycobacterium bovis*, and gram-negative bacteria and filamentous fungi. Antibodies against *Mycobacterium tuberculosis* react positive on the core of *Mycobacterium bovis*. DNA can be extracted and used as positive control for the detection of mycobacterium using PCR.
- ▶ The **Cell Control Array ROS1 (IHC)** includes two ROS1-positive cell lines showing weak and medium ROS1 expression, one ROS1-negative cell line, and one core of heart muscle tissue. RNA can be extracted and be used for detection of CD74-ROS1-fusion mRNA via RT-PCR.

CCA features:

- ▶ Suitable as on-slide controls next to test samples.
- ▶ No loss of cell cores. Homogenous paraffine block ensures integrity of the cell cores after cutting.
- ▶ Dyed paraffine and myocardial tissue core ensure easy handling and orientation.
- ▶ Consistent high quality.

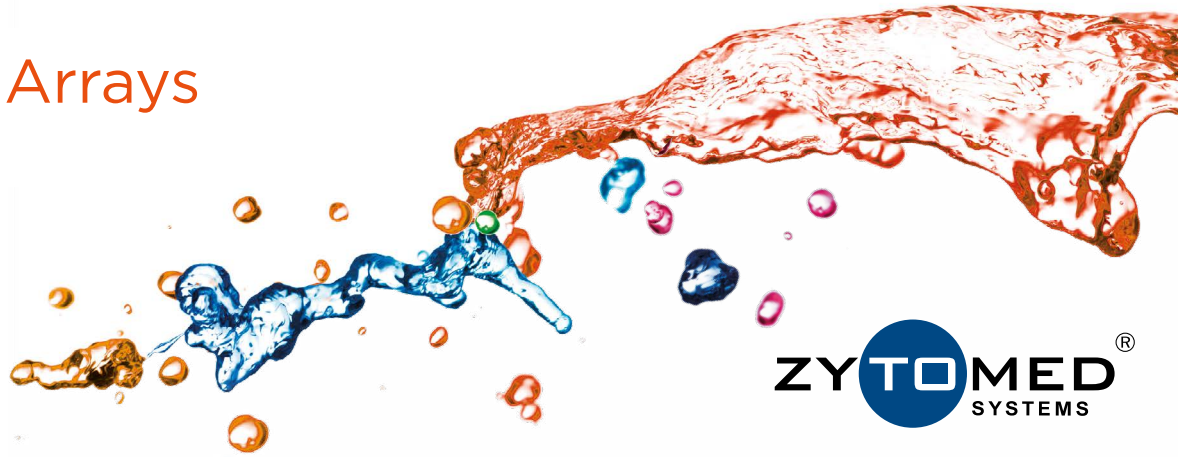
CCA applications:

- ▶ New marker establishment
- ▶ Assay optimization
- ▶ Protocol validation
- ▶ Routine IHC runs



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► CCA FFPE blocks and Cell Control Slides sets

Cell Control Arrays (homogenous paraffin blocks)

Product	Description	Amount	Status	Order no.
Cell Control Array ALK (IHC)	1 core of ALK positive cell line + 1 core of ALK negative cell line	1 Block	RUO	MB-CC ALK
Cell Control Array Bacteria plus Fungi	3 cores of different bacteria + 1 core of fungi	1 Block	RUO	MB-CC BAC
Cell Control Array Receptor	4 cores with different expression levels of ER, PR and HER2	1 Block	RUO	MB-CC REZ
Cell Control Array ROS1 (IHC)	3 cores with different expression of ROS1	1 Block	RUO	MB-CC ROS1
Cell control Array Virus	5 cores of virus-infected cell lines	1 Block	RUO	MB-CC VIR

Cell Control Slides sets (precut sections that are mounted on coated slides and already baked)

Product	Description	Amount	Status	Order no.
Cell Control Slides HPV	3 cores of different HPV infected cell lines + 1 core of a HPV negative cell line	5 Slides	RUO	MB-CC HPV-S

Custom made

We offer the preparation of tissue arrays from your own laboratory tissues or cell lines for control and research purposes.

► Selection of corresponding Zytomed System antibodies

Description	Clone	Host	Dilution	Amount	Status	Order No.
ALK (p80)	5A4	Mouse	1:100 - 1:200	0.5 ml	CE/IVD	MSK096-05
Rabbit anti-Estrogen Receptor	SP1	Rabbit	Ready-to-use	16 ml	CE/IVD	BRB053
			1:200	1 ml	RUO	RBK018
				0.5 ml		RBK018-05
Rabbit anti-HER2 (c-erbB-2)	SP3	Rabbit	Ready-to-use	6 ml	CE/IVD	RBG026
			1:100 - 1:200	1 ml		RBK026
				0.5 ml		RBK026-05
Rabbit anti-Progesterone Receptor	SP42	Rabbit	Ready-to-use	6 ml	CE/IVD	BRB038
			1:200 - 1:400	1 ml		RBK020
				0.5 ml		RBK020-05
ROS1	EPMGHR2	Rabbit	Ready-to-use	6 ml	RUO	RBG071
			1:100	0.5 ml		RBK071-05
				0.1 ml		RBK071-01
Cytomegalovirus (CMV Cocktail)	DDG9 + CCH2	Mouse	Ready-to-use	6 ml	RUO	MSG121
			1:10 - 1:25	0.5 ml		MSK121-05

Abbreviations

CE/IVD: for in vitro diagnostic use; RUO: research use only

! Note that the use of a non CE/IVD-labeled reagent will result in a LDT. This must be validated by the user to meet the regulatory requirements of the In-vitro Diagnostics Regulation (EU) 2017/746 (IVDR).

For questions or requests regarding our full portfolio, write an email to international@zytomed-systems.de