

Immuno-
compromised



Automated Real-Time Efficiency in Monitoring Immunocompromised Patients

Automated testing of different specimen types with the AltoStar® Molecular Diagnostic Workflow

Persons with congenital or acquired immunodeficiency cannot respond properly to an infection due to an impaired or weakened immune system. There are various causes that can affect the human immune system such as the infection with certain viruses, like the human immunodeficiency virus (HIV), antitumor treatments in cancer patients, immunosuppressing drugs given to transplant recipients, but also genetic disorders. Immunocompromised patient management highly leans on the reliable monitoring of the viral load of so-called indicator viruses, like different herpes- and polyomaviruses.

The AltoStar® Immunocompromised PCR Panel facilitates viral load monitoring with possible clinical relevance for patients with immunodeficiency to adjust the activity of the immune system.

AltoStar® PCR kits are CE-IVD marked tests and aimed to be used as part of the automated AltoStar® Molecular Diagnostic Workflow. The assays are based on real-time PCR technology, utilizing polymerase chain reaction (PCR) for the amplification of specified target sequences, as well as target-specific probes linked to fluorescence dyes used for the detection and quantification of specific amplification products.

Key advantages: The AltoStar® workflow enables the parallel processing of various specimen types using one single purification chemistry, as well as the simultaneous detection and quantification of multiple relevant viruses and other pathogens in one single run.

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AltoStar®

AltoStar® PCR Kits

Product Name	Detection and Quantification of	Order No.
Immunocompromised Testing		
AltoStar® Adenovirus PCR Kit 1.5	Human Adenovirus (quantitative)	AS0301513
AltoStar® CMV PCR Kit 1.5	Cytomegalovirus (quantitative)	AS0021513
AltoStar® EBV PCR Kit 1.5	Epstein-Barr Virus (quantitative)	AS0131513
AltoStar® HHV-6 PCR Kit 1.5	Human Herpesvirus 6A and 6B (quantitative)	AS0311513
AltoStar® HSV PCR Kit 1.5	Herpes Simplex Virus 1 and 2 (quantitative)	AS0061513
AltoStar® VZV PCR Kit 1.5	Varicella-Zoster Virus (quantitative)	AS0071513
AltoStar® <i>alpha</i> Herpesvirus PCR Kit 1.5	HSV-1, HSV-2 and VZV	AS0081513
AltoStar® BKV PCR Kit 1.5	BK Virus (quantitative)	AS0031513
AltoStar® JCV PCR Kit 1.5	JC Virus (quantitative)	AS0041513

The AltoStar® PCR kits are CE-IVD marked diagnostic kits according to the European *in vitro* diagnostic directive 98/79/EC. Each AltoStar® PCR kit contains components sufficient for 96 rxns.

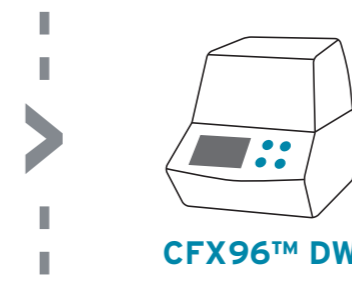
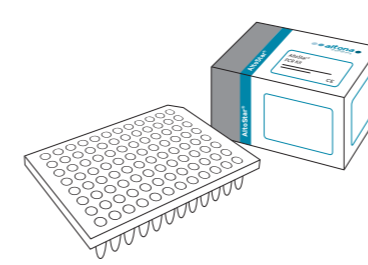
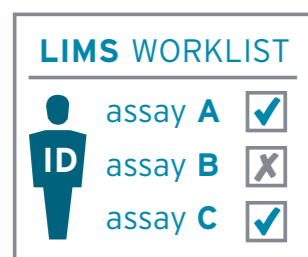
Regardless of the specimen type – cover your entire real-time PCR infectious disease testing workflow with high flexibility, optimized costs and full process reliability.

- Broad range of CE-IVD-marked ready to use PCR kits
- Various sample types with one purification chemistry (DNA/RNA)
- One universal Internal Control (purification, PCR)
- Software-supported workflow and reliable sample identification
- Up to eight assays on a 96-well plate with no required minimal batch size
- Low and high sample volumes possible in one run
- No refilling and no mixing of solutions necessary
- Reduced hands-on-time
- High quality customized support
- First class technical service by our application specialists

Performance Data for AltoStar® PCR Kits 1.5

Pathogen	Specimen Type	Limit of Detection (95%)	Linear Range
Adenovirus	Plasma	141 cp/ml	2.50E+02 to 1.00E+08 cp/ml
	Whole Blood	382 cp/ml	5.00E+02 to 1.00E+08 cp/ml
CMV	Plasma	215 IU/ml	2.50E+02 to 1.00E+08 IU/ml
	Whole Blood	305 IU/ml	5.00E+02 to 1.00E+08 IU/ml
	Urine	711 IU/ml	1.00E+03 to 1.00E+08 IU/ml
EBV	Plasma	195 IU/ml	2.00E+02 to 1.00E+08 IU/ml
	Whole Blood	320 IU/ml	1.50E+03 to 1.00E+08 IU/ml
HHV-6	Plasma	6A: 249 IU/ml	2.50E+02 to 3.00E+07 IU/ml
		6B: 134 IU/ml	2.50E+02 to 3.00E+07 IU/ml
	Whole Blood	6A: 1,112 IU/ml	2.50E+03 to 1.00E+07 IU/ml
		6B: 653 IU/ml	2.50E+03 to 1.00E+07 IU/ml
HSV	Plasma	HSV-1: 34 cp/ml	2.00E+02 to 1.00E+08 cp/ml
		HSV-2: 73 cp/ml	2.00E+02 to 5.00E+07 cp/ml
VZV	Plasma	73 cp/ml	1.00E+02 to 1.00E+08 cp/ml
<i>alpha</i> Herpesviruses	Swab	HSV-1: 26 cp/ml	-
		HSV-2: 37 cp/ml	-
		VZV: 91 cp/ml	-
BKV	Plasma	66 IU/ml	2.00E+02 to 1.00E+08 IU/ml
	Whole Blood	105 IU/ml	2.00E+02 to 1.00E+08 IU/ml
	Urine	21 IU/ml	2.00E+02 to 1.00E+08 IU/ml
JCV	Plasma	3.6 IU/ml	1.00E+02 to 1.00E+08 IU/ml

WORKFLOW



AltoStar® Automation System AM16 Sample Preparation

PCR Setup

PCR Instrument

Analysis