

Veterinary & Animal Health

Molecular and Immunoassay solutions for infectious disease testing



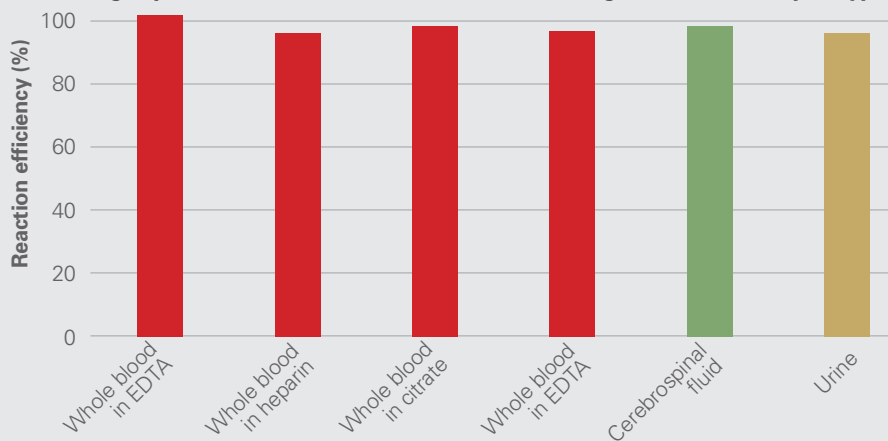
Veterinary medicine has transformed the health and welfare of livestock and companion animals worldwide.

As the globalized trade of animals and their products increases, the threat of infectious disease impacting livestock health and food supplies has also increased in addition to the emergence of zoonotic diseases. Some infectious diseases have highly visible consequences, while others remain silent for weeks or months. Accurate and rapid diagnostic tests are therefore an essential component to detect, control and eradicate such diseases.

With so many different species and diseases in veterinary health, vet diagnostic tests rely on both immunoassay and molecular technologies. qPCR has become an indispensable component of routine veterinary diagnostics due to its speed, sensitivity and selectivity, and potential for multiplex analysis. However, there is a growing need for field-based point-of-care testing to enable a rapid diagnosis and prevent transmission, especially when animals live in flocks and herds. Transport of specimens from the field to the laboratory can be a lengthy process that can delay critical decision-making and severely affect the quality of the samples. By using lateral point-of-care devices or ambient temperature stable qPCR assays, the need for transporting specimens is reduced as assays can be performed on-site in low-resource settings such as farms and in the wild.

Optimized qPCR & RT-qPCR Mixes for Whole Blood, Urine and other Inhibitor-Rich Clinical Samples

High qPCR Reaction Efficiencies Across a Range of Crude Sample Types



Inhibitor-Tolerant qPCR Mix (MDX013) was used in a series of qPCR reactions containing a variety of crude clinical samples including whole blood, cerebrospinal fluid (20%) and urine (20%). The results demonstrate that the reaction efficiency of the Inhibitor-Tolerant qPCR Mix remained within 90-110% in the presence of a wide range of common PCR inhibitors.

Types of qPCR/RT-qPCR Optimized Mixes



Inhibitor-Tolerant Mixes

Optimized for extraction-free assays from crude clinical specimens (sputum, saliva and stool)



Fast Mixes

Ideal for multiplex assays on fast, automated high-throughput systems



Lyo-ready Mixes

Pre-formulated with lyo-excipients for lyophilization into beads or cakes



Air-Dryable Mixes

Ready-to-use mix compatible with a range of air-drying protocols to produce an ambient temperature stable assay

Features

	Inhibitor-Tolerant Mixes	Fast Mixes	Lyo-ready Mixes	Air-Dryable Mixes
Cat#	MDX013 MDX016	MDX020 MDX032	MDX021 MDX023 MDX024	MDX082 MDX092 MDX095
Concentration	4x	2x	2x	4x
Master Mix	✓	✓	✓	✓
Hot-Start	Antibody	Antibody	Antibody	Antibody
Ambient-Temperature Assays	-	-	★	★
Multiplex Reactions	★	★	★	★
RNA/DNA Extraction-Free Protocols	★	-	-	-
Inhibitor-Tolerant	★★	-	-	★

RT-qPCR Control	RT-qPCR Extraction Control	VLP RNA Extraction Control
	<ul style="list-style-type: none"> • Monitors assay inhibition • Suitable for use with inhibitor-rich samples <p>MDX028 (Red, Quasar 670) MDX029 (Orange, Cal Fluor Orange)</p>	<ul style="list-style-type: none"> • Closely mimics the test sample • Undergoes the same processing from lysis and extraction to detection • Compatible with lyophilization for creating freeze-dried mixes <p>MDX068 (Red, Cy5) MDX069 (Orange, HEX) MDX071 (Custom)</p>

* Recommended

Molecular Product Selection Chart

- Suitable
- Recommended

	Cat#	Master Mix	Hot-Start	Ambient-Temperature Assays	Proof-Reading	Low Residual DNA	Fast Reactions	Multiplex Reactions	Inhibitor-Rich Samples	Low Copy Template
qPCR	Low DNA qPCR Mix	MDX030	✓	Chemical			●●		●●	●●
	Fast qPCR Mix	MDX020	✓	Antibody				●●	●●	●●
	Hi-Throughput dUTP Mix	MDX031 & MDX060	✓	Antibody			●	●●		
	Inhibitor-Tolerant qPCR Mix	MDX013	✓	Antibody				●●	●●	
RT-qPCR	Inhibitor-Tolerant RT-qPCR Mix	MDX016	✓	Antibody			●●	●●	●●	●●
	Fast 1-Step RT-qPCR Mix	MDX032	✓	Antibody			●●	●●		
	Low LOD 1-Step RT-qPCR Mix	MDX025	✓	Antibody				●●	●●	●●
	Lyo-Compatible MMLV-RT	MDX042		No	●●		●	●		
	RNase-Tolerant MMLV-RT	MDX043		No				●	●●	
	MMLV-RT	MDX044		No			●	●		
Ambient-Temp Stable qPCR/RT-qPCR	Air-Dryable™ qPCR Mix	MDX082	✓	Antibody	●●			●●	●●	●
	Air-Dryable™ 1-Step RT-qPCR Mix	MDX095	✓	Antibody	●●			●●	●●	●
	Air-Dryable™ Direct DNA qPCR Blood	MDX092	✓	Antibody	●●			●●	●●	●●
	Lyo-Ready™ qPCR Mix	MDX021 & MDX023	✓	Antibody	●●			●●	●●	●
	Lyo-Ready™ 1-Step RT-qPCR Mix	MDX024	✓	Antibody	●●			●	●●	
	Lyo-Ready™ 1-Step RT-qPCR Virus Mix	MDX062	✓	Antibody	●●			●	●●	
LAMP	Lyo-Ready™ LAMP Mix	MDX097	✓	No	●●			●●		●●
	Lyo-Ready™ RT-LAMP 1-Step Mix	MDX108	✓	No	●●			●●		●●
	Bst DNA Polymerase	MDX012		No				●●		●●
	High Conc. Glycerol-Free Bst	MDX018		No	●●			●●		●
Enzymes	Taq DNA Polymerase	MDX001		No				●	●	●
	Taq HS DNA Polymerase	MDX008		Antibody				●●	●●	●●
	Glycerol-Free Taq HS	MDX011		Antibody	●●			●●	●	
	Aptamer Taq HS (Glycerol-Free)	MDX015		Aptamer	●●			●●	●●	●●
	Low DNA Taq HS	MDX009 & MDX010		Chemical			●●		●●	
	High-Fidelity Pfu	MDX003		No		●●				
	High-Specificity Pfu HS	MDX006		Aptamer		●●			●●	●●

Optimized Mixes

PRODUCT	CAT NO.	VOLUME	REACTIONS
qPCR (DNA Template) Hot-Start Master Mixes			
Low DNA qPCR Mix Ideal for microbial and fungal DNA detection assays.	MDX030	5 mL	500 Rxn
		100 mL	10,000 Rxn
Fast qPCR Mix Suitable for fast high-multiplex qPCR assays.	MDX020	5 mL	500 Rxn
		100 mL	10,000 Rxn
Fast qPCR Mix, 5x Suitable for fast high-multiplex qPCR assays (5x concentration).	MDX072	2 mL	500 Rxn
		40 mL	10,000 Rxn
Digital PCR Mix, 5x Suitable for digital PCR (dPCR) assays (5x concentration).	MDX074	2 mL	500 Rxn
		40 mL	10,000 Rxn
Hi-throughput dUTP qPCR Mix Optimized formulation for efficient dUTP incorporation to remove background PCR product contamination.	MDX031	5 mL	500 Rxn
		100 mL	10,000 Rxn
Inhibitor-Tolerant qPCR Mix Designed for amplification direct from crude lysates or inhibitor-rich samples such as urine, cerebral spinal fluid (CSF), blood as well as plants.	MDX013	5 mL	500 Rxn
		100 mL	10,000 Rxn
Inhibitor-Tolerant qPCR Mix, 5x Designed for amplification direct from crude lysates or inhibitor-rich samples such as urine, cerebral spinal fluid (CSF), blood as well as plants (5x concentration).	MDX073	2 mL	500 Rxn
		40 mL	10,000 Rxn
RT-qPCR (RNA Template) Hot-Start Master Mixes			
Fast 1-Step RT-qPCR Mix RT-qPCR mix formulated for fast, automated, high-throughput systems.	MDX032	10 mL	1,000 Rxn
		100 mL	10,000 Rxn
Inhibitor-Tolerant RT-qPCR Mix, 4x All-in-one, 4x master mix designed for RT-qPCR from crude samples such as sputum, stool and saliva. No sample extraction required.	MDX016	1 mL	200 Rxn
		50 mL	10,000 Rxn
Low LOD 1-Step RT-qPCR Mix Suitable for detecting RNA and DNA viruses at very low levels for applications such as blood bank or transplant viral testing.	MDX025	10 mL	1,000 Rxn
		100 mL	10,000 Rxn

PRODUCT	CAT NO.	VOLUME	REACTIONS
Ambient-Temperature Stable qPCR/RT-qPCR Hot-Start Master Mixes			
Air-Dryable™ qPCR Mix, 4x Ready-to-use qPCR mix ideal for oven or air-drying technologies.	MDX082	5 mL	1,000 Rxn
		50 mL	10,000 Rxn
Air-Dryable™ RT-qPCR Mix, 4x Ready-to-use RT-qPCR Mix ideal for oven or air drying technologies.	MDX095	5 mL	1,000 Rxn
		50 mL	10,000 Rxn
Air-Dryable™ Direct DNA qPCR Blood, 4x Inhibitor-tolerant qPCR mix ideal for oven or air-drying technologies. Can be used for direct detection using whole blood, serum or plasma samples.	MDX092	5 mL	1,000 Rxn
		50 mL	10,000 Rxn
Lyo-Ready™ qPCR Mix Ready-to-use, glycerol-free qPCR master mix formulated with a specialized blend of excipients for lyophilization into beads or pellets.	MDX021	5 mL	500 Rxn
		100 mL	10,000 Rxn
Lyo-Ready™ qPCR Mix, 2.6x Ready-to-use, glycerol-free qPCR master mix formulated with a specialized blend of excipients for lyophilization into beads or pellets (2.6x concentration).	MDX023	8 mL	1,000 Rxn
		100 mL	12,500 Rxn
Lyo-Ready™ 1-Step RT-qPCR Mix Ready-to-use, glycerol-free RT-qPCR master mix formulated with a specialized blend of excipients for lyophilization into beads or pellets.	MDX024	10 mL	1,000 Rxn
		100 mL	10,000 Rxn
Lyo-Ready™ 1-Step RT-qPCR Virus Mix Ready-to-use, glycerol-free RT-qPCR master mix formulated with a specialized blend of excipients and highly suited for amplification of RNA viruses with a high secondary structure.	MDX062	10 mL	1,000 Rxn
		100 mL	10,000 Rxn
Loop-Mediated Isothermal Amplification (LAMP) Master Mixes			
Lyo-Ready™ LAMP Mix Ready-to-use, glycerol-free RT-qPCR master mix formulated with a specialized blend of excipients for lyophilization into beads or pellets.	MDX097	5 mL	800 Rxn
		50 mL	8,000 Rxn
Lyo-Ready™ RT-LAMP 1-Step Mix Ready-to-use, glycerol-free RT-qPCR master mix formulated with a specialized blend of excipients for lyophilization into beads or pellets.	MDX108	5 mL	800 Rxn
		50 mL	8,000 Rxn

Polymerases

PRODUCT	CAT NO.	VOLUME	REACTIONS
DNA Polymerases			
Taq DNA Polymerase DNA Polymerase provided with optimized buffer system for fast PCR reactions across a range of templates. (<i>*Enzyme only</i>)	MDX001	100 µL	500 Units
		10 mL	50,000 Units
		10 mL	50,000 Units*
Taq HS DNA Polymerase Antibody-mediated hot-start enzyme ideal for fast multiplex reactions. Robust performance with low-copy number targets even in the presence of PCR inhibitors. (<i>*Enzyme only</i>)	MDX008	100 µL	500 Units
		10 mL	50,000 Units
		10 mL	50,000 Units*
Glycerol-Free Taq HS 50 U/µL Lyophilization-compatible, high concentration (50 U/µL), glycerol free DNA enzyme for automated high-throughput testing (<i>provided as separate antibody, enzyme and dilution buffer</i>).	MDX011	20 µL	1,000 Units
		500 µL	25,000 Units
Aptamer Taq HS (Glycerol-Free) 50 U/µL A high concentration, lyophilization-compatible Taq DNA polymerase containing a DNA aptamer which binds reversibly to the polymerase. Suitable for developing highly specific, high-throughput assays.	MDX015	20 µL	1,000 Units
		500 µL	50,000 Units
Low DNA Taq HS 5 U/µL Heat-activated, thermostable DNA polymerase suited amplification of bacterial and fungal DNA.	MDX009	100 µL	500 Units
		10 mL	50,000 Units
Low DNA Taq HS 10 U/µL Heat-activated, thermostable DNA polymerase suited to amplification of bacterial and fungal DNA.	MDX010	50 µL	500 Units
		5 mL	50,000 Units
High-Fidelity Polymerases			
High-Fidelity Pfu 3' - 5' proofreading exonuclease activity with an error rate of 3.0×10^{-6} and generates blunt-ended amplicons up to 5 kb in length.	MDX003	200 µL	500 Units
		10 mL	25,000 Units
High-Specificity Pfu HS Mix High-fidelity, aptamer-based hot start DNA polymerase tailored for low GC bias amplification.	MDX006	5 mL	200 Rxn
		100 mL	4,000 Rxn
Isothermal Polymerases			
Bst DNA Polymerase Stable, heat resistant DNA polymerase optimized for LAMP and contains 5' > 3' DNA polymerase activity and strong strand displacement activity.	MDX012	1 mL	-
		20 mL	-
High Conc. Glycerol-Free Bst Lyophilization-compatible DNA polymerase for isothermal applications.	MDX018	8 µL	-
		80 µL	-
Inhibitor-Tolerant Bst Buffer Optimized buffer for MDX012 and MDX018 that increases the amplification speed, sensitivity, and tolerance to salt and other inhibitors found in clinical samples and transport media.	MDX019	2 mL	-
		100 mL	-

Polymerases

PRODUCT	CAT NO.	VOLUME	REACTIONS
Reverse Transcriptase			
Lyo-compatible MMLV-RT High-concentration MMLV-RT suitable for incorporation into lyophilized RT-PCR assays.	MDX042	8 µL	1,000 Rxn
		80 µL	10,000 Rxn
RNase-Tolerant MMLV-RT Mixture of MMLV-RT and RNase inhibitor ideal for RT-qPCR assays.	MDX043	200 µL	1,000 Rxn
		2 mL	10,000 Rxn
MMLV-RT MMLV-RT suitable for generating first strand cDNA of up to 9 kb.	MDX044	200 µL	1,000 Rxn
		2 mL	10,000 Rxn
Next-Generation Sequencing			
NGS Clean and Select Beads Paramagnetic SPRI beads designed for clean-up and size selection of DNA fragments or NGS libraries.	MDX041	50 mL	-
		500 mL	-
NGS ER Enzyme Mix A mix that processes both 3' and 5' overhangs generating product that is 5' phosphorylated with 3' A overhang.	MDX040	6 mL	1,000 Rxn
NGS Ligase Enzyme that catalyzes the ligation of adaptors to 3' A overhangs.	MDX037	2 mL	1,000 Rxn
NGS Library Quantification qPCR-based assay for the quantification of only adapter-ligated library molecules.	MDX039	1 Kit	500 Rxn

Components

PRODUCT	CAT NO.	VOLUME	REACTIONS
Buffers			
NGS High-Fidelity Pfu Buffer, 10x Optimized for use with High-Fidelity Pfu (MDX003).	MDX038	5 mL	1,000 Rxn
NGS End-Repair Buffer, 5x Optimized for use with NGS ER Enzyme Mix (MDX040).	MDX035	10 mL	1,000 Rxn
NGS Ligase Buffer, 5x Optimized for use with NGS Ligase (MDX037).	MDX036	3 mL	1,000 Rxn
Taq PCR Buffer, 5x Optimized for use with Taq DNA Polymerase (MDX001) and Taq HS DNA Polymerase (MDX008).	MDX002	2 mL	500 Rxn
Bst Reaction Buffer, 10x Optimized for use with Bst DNA Polymerase (MDX012) and High Conc. Glycerol-Free Bst (MDX018).	MDX076	5 mL	-
		10 mL	-
Enzyme Dilution Buffer, 1x A glycerol containing 1x dilution buffer, for the dilution of enzymes to reaction concentration.	MDX078	5 mL	-
		100 mL	-

Components

PRODUCT	CAT NO.	VOLUME	REACTIONS
Enzyme Dilution Buffer (10x) Glycerol free A glycerol-free, 10x dilution buffer, for the dilution of enzymes to reaction concentration.	MDX080	5 mL 10 mL	- -
Tissue Extract-PCR Buffers Lysis and neutralization buffer optimized for use with Taq HS DNA Polymerase (MDX008) to perform PCR direct from crude lysate.	MDX004	1 Kit	1,000 Rxn
Fast qPCR Buffer, 4x Optimized for use with Taq HS DNA Polymerase (MDX008).	MDX033	2.5 mL 50 mL	500 Rxn 10,000 Rxn
1-Step RT-qPCR Buffer, 4x Optimized for use with Taq HS DNA Polymerase (MDX008) and RNase-Tolerant MMLV-RT (MDX043).	MDX034	2.5 mL 50 mL	500 Rxn 10,000 Rxn
Lyo-Ready qPCR Buffer, 2.5x Optimized for use with Glycerol-Free Taq HS (MDX011). In order to produce lyophilized, ambient-temperature stable qPCR reagents, dNTPs, MgCl ₂ and glycerol-free Taq DNA polymerase are not included in the buffer.	MDX022	8 mL 100 mL	1,000 Rxn 12,500 Rxn
Lyo-Ready qPCR Buffer w/o Excipients, 4x Optimized for use with Glycerol-Free Taq HS (MDX011).	MDX061	2.5 mL 100 mL	500 Rxn 20,000 Rxn
Taq Dilution Buffer This Buffer provides the optimal conditions to store Meridian polymerases, conferring long-term stability at -20 °C (MDX008).	MDX007	5 mL 100 mL	- -
Inhibitor-Tolerant PCR Buffer, 5x Used with Taq HS DNA Polymerase (MDX008) for amplification direct from crude lysates or inhibitor-rich samples such as urine, cerebral spinal fluid (CSF), blood as well as plants.	MDX075	2 mL 100 mL	500 Rxn 20,000 Rxn
Inhibitor-Tolerant Bst Buffer Optimized buffer for MDX012 and MDX018 that increases the amplification speed, sensitivity, and tolerance to salt and other inhibitors found in clinical samples and transport media.	MDX019	2 mL 100 mL	- -
General Reagents			
Uracil DNA Glycosylase (UDG)# Enzyme that efficiently hydrolyzes uracil from ssDNA or dsDNA. Endonuclease, exonuclease, nickase and RNase-free.	MDX054	10 mL	10,000 Units
Proteinase K Solution RNase and DNase free, ideal for removing endogenous nucleases when purifying native DNA or RNA.	MDX055	25 mL	500 mg
RNase Inhibitor Inhibits a broad spectrum of eukaryotic RNases, including RNases A, B and C to control for contaminants in RT-PCR assays.	MDX056	250 µL 2.5 mL	10,000 Units 100,000 Units
Taq HS Antibody A mix of anti-Taq antibodies designed to inhibit Taq DNA polymerase activity at room temperature. For use in hot-start PCR.	MDX014	20 µL 250 µL	1,000 Units 12,500 Units

* Not available in China

Not available in the US

dNTPs

Ready-to-use sequencing grade dNTPs available individually, as sets, or pre-blended dNTP mixes. Ultra-pure (>99% by HPLC) free of PCR inhibitors, DNase and RNase.

PRODUCT	CAT NO.	VOLUME
dNTPs Lithium Salt		
dNTP Set, 100 mM Provided as four separate solutions at 100 mM concentration (dATP, dCTP, dGTP & dTTP).	MDX050	4 x 250 µL
		4 x 50 mL
dNTP Mix, 100 mM Supplied as a mixture (dATP, dCTP, dGTP & dTTP). Total concentration of mix is 100 mM (25 mM of each nucleotide).	MDX051	500 µL
		50 mL
		100 mL
		1 L
dUTP Mix, 50 mM Supplied as a mixture (10 mM dATP, dCTP, dGTP and 20 mM dUTP).	MDX058	50 mL
dUTP, 100 mM	MDX059	50 mL
dATP, 100 mM	MDX046	50 mL
dCTP, 100 mM	MDX047	50 mL
dGTP, 100 mM	MDX048	50 mL
dTTP, 100 mM	MDX049	50 mL
dNTPs Sodium Salt		
dNTP Mix, 10 mM sodium salt*	MDX067	<i>Please Enquire</i>
dNTP Mix, 40 mM sodium salt*	MDX083	<i>Please Enquire</i>
dNTP Mix, 100 mM sodium salt*	MDX084	<i>Please Enquire</i>
dATP Mix, 100 mM sodium salt*	MDX063	<i>Please Enquire</i>
dCTP Mix, 100 mM sodium salt*	MDX064	<i>Please Enquire</i>
dGTP Mix, 100 mM sodium salt*	MDX065	<i>Please Enquire</i>
dTTP Mix, 100 mM sodium salt*	MDX066	<i>Please Enquire</i>

qPCR

The qPCR Extraction Controls are *E. coli* cells of a known concentration containing the Internal Control DNA sequence (with no known homology to any organism, so that it does not interfere with the detection of the sample DNA). Genetic material from the test sample and the DNA extraction control are simultaneously extracted by common extraction methods with the control being as sensitive to the same inhibition and extraction failure as the test sample.

Product Highlights

- Extraction control undergoes the same sample processing as test sample
- Can be used with a variety of sample types including inhibitor-rich samples such as blood, urine and sputum
- Confirms successes of extraction step and monitors co-purification of PCR inhibitor inhibitors
- Probe based designed specifically for multiplex qPCR assays
- Control DNA is unique with no homology to any organism

PRODUCT	CAT NO.	VOLUME	REACTIONS
qPCR Extraction Control RED (Quasar® 670)	MDX026	10 mL	2,000 Rxn
qPCR Extraction Control ORANGE (Cal Fluor® 560)	MDX027	10 mL	2,000 Rxn

RT-qPCR

VLP-RNA Extraction Control is RNA molecule without any known homology, protected in a protein nanocage, harnessing the stability of viral structures. VLP-RNA Extraction Control is spiked into the biological sample and undergoes the entirety of the sample processing, enabling users of RT-qPCR assay to not only validate the success of the extraction and the reverse transcription steps, but also to determine the presence of PCR inhibitors, reducing the chance of obtaining false negatives and resulting in reliable and accurate results. The VLP-RNA Extraction Control is provided with its own detection system and can have its sequence customized if necessary.


Product Highlights


- Contains a defined number of copies of target RNA molecules, encapsidated within a virus-like particle (VLP)
- RNA sequence is customizable up to 1000nt
- Non-infectious material for ease of handling and shipping
- Closely mimics the test sample, undergoing the same processing route from lysis and extraction to RT-qPCR detection
- Compatible with commonly used RNA extraction methods and lyophilization

PRODUCT	CAT NO.	REACTIONS
VLP-RNA Extraction Control Red	MDX068	1 mL (~1x10 ⁴ copies/μL)
		20 mL (~1x10 ⁴ copies/μL)
VLP-RNA Extraction Control Orange	MDX069	1 mL (~1x10 ⁴ copies/μL)
		20 mL (~1x10 ⁴ copies/μL)
VLP-RNA Extraction Control	MDX071	<i>Please enquire</i>




Antigens & Antibodies for Immunoassays

DESCRIPTION	TYPE	APPLICATION	CAT #
			
<i>Brucella abortus</i>			
Intact Cells	MAB	ELISA, WB	C86116M
Intact Cells	MAB	ELISA, WB	C86131M
Coronavirus, Bovine			
Surface Antigen (Peplomer)	MAB	ELISA, HIA	C86540M
Cryptosporidium, Bovine			
Intact Oocysts	PAb (Goat)	ELISA, IFA	B65651G
Foot-and-mouth disease (FMD)			
Non-Structural Protein (NS)	MAB	ELISA	C01452M
Serotype O1	MAB	ELISA	C01448M
Nebraska Calf Diarrhea Virus (NCDV, Rotavirus)			
NCDV p43 (vp6)	MAB	ELISA	C11222M
NCDV (ICPs)	PAb (Goat)	IFA	B65110G
NCDV (ICPs)	PAb (Goat)	ICC	B65213G
NCDV (ICPs)	PAb (Goat)	IFA	B65211G
NCDV (ICPs)	PAb (Goat)	IFA	B65212G
Low Density Lipoprotein (LDL)			
Ligand binding region within repeat #1	MAB	IFA, WB, FC	H44070M
Luteinizing Hormone (LH)			
LH (X-reacts with sheep, goat and deer)	PAb (Rabbit)	ELISA, IHC, WB	D01237R
Trichomonas foetus			
<i>T. foetus</i>	MAB	ELISA, IFA, pair	C01573M
<i>T. foetus</i>	MAB	ELISA, IFA, pair	C01572M

DESCRIPTION	TYPE	APPLICATION	CAT #
			
African Swine Fever Virus (ASFV)			
p30 Protein	MAB	ELISA, IFA, IHC, IP, WB	C01881M
p30 Protein	MAB	ELISA, IFA, IHC, IP, WB	C01882M
p30 Protein	Ag (Rec.)	ELISA	R01793
p30 Protein	Ag (Rec.)	ELISA	R01795
p54 Protein	Ag (Rec.)	ELISA	R01796
Nipah Virus (NiV)			
G Protein	MAB	ELISA, pair	C01974M
G Protein	MAB	ELISA, pair	C01975M
G Protein (Malaysia strain)	Ag (Rec.)	ELISA, pair	R01766
Porcine Epidemic Diarrhea Virus (PEDV)			
PEDV	MAB	ELISA, LF, WB, pair	C02005M
PEDV	MAB	ELISA, LF, WB, pair	C02006M
Nucleoprotein	Ag (Rec.)	ELISA, LF, WB	R01778
Transmissible Gastroenteritis Virus (TGV)			
Peplomer Protein	MAB	ELISA, Neut	C55802M
Peplomer Protein	MAB	ELISA	C55803M




Antigens & Antibodies for Immunoassays


Description	Type	Application	Cat #
			
Canine Distemper Virus (CDV)			
Surface Envelope Antigen	MAb	ELISA, LF, IFA, pair	C86504M
Surface Envelope Antigen	MAb	ELISA, IFA, pair	C86801M
CDV	MAb	ELISA, LF, pair	C01986M
CDV	MAb	ELISA, LF, pair	C01987M
CDV	MAb	ELISA, LF, pair	C01988M
CDV	MAb	ELISA, LF, pair	C01989M
CDV	MAb	ELISA, LF, pair	C01990M
CDV	Ag (Native)	ELISA	A01726C
Coronavirus			
Coronavirus	Goat	ELISA, IEP, pair	C02011G
Coronavirus	MAb	ELISA, pair	C01998M
Coronavirus	MAb	ELISA, pair	C01999M
Nucleoprotein	MAb	ELISA, pair	C02000M
Nucleoprotein	MAb	ELISA, pair	C02001M
Nucleoprotein	MAb	ELISA, pair	C02009M
Nucleocapsid	MAb	ELISA, LF, WB, pair	C02010M
Coronavirus	Ag (Native)	ELISA	A01730N
C-Reactive Protein			
CRP	MAb	ELISA, pair	M01345M
CRP	MAb	ELISA, WB	M01346M
CRP	MAb	ELISA, pair	M01347M
CRP	MAb	ELISA, pair	M01348M
CRP	Ag (Rec.)	ELISA, pair	R01772
Cystatin C			
Cystatin C	MAb	ELISA, pair	H01303M
Cystatin C	MAb	ELISA, pair	H01304M
Heartworm (<i>Dirofilaria immitis</i>)			
<i>D. immitis</i>	MAb	ELISA, pair	C01991M
<i>D. immitis</i>	MAb	ELISA, pair	C01992M
<i>D. immitis</i>	MAb	ELISA, pair	C01993M
<i>D. immitis</i>	MAb	ELISA, LF	MKZ30-487
<i>D. immitis</i>	PAb (Rabbit)	ELISA, pair	C01994R

Description	Type	Application	CAT #
Parvovirus			
Parvovirus	MAb	ELISA, LF	C02003M
Parvovirus	MAb	ELISA, LF	C02004M
Parvovirus	MAb	ELISA, LF, pair	C86004M
Parvovirus	MAb	ELISA, pair	C86005M
Parvovirus	Ag (Native)	ELISA	A01727C
VP2 Protein	Ag (Rec.)	ELISA, pair	R01770
pro-Brain Natriuretic Peptide, N-Terminal (NT-proBNP)			
N-Terminal, a.a. 40-50	MAb	ELISA	H01353M
N-Terminal, a.a. 64-72	MAb	ELISA	H01354M
Serum Amyloid A (SAA)			
SAA	MAb	ELISA, WB, pair	H01381M
SAA	MAb	ELISA, WB, pair	H01383M
SAA	MAb	ELISA, WB, pair	H01384M
SAA	MAb	ELISA, WB, pair	H01382M
SAA	MAb	ELISA, WB, pair	H01425M
SAA	MAb	ELISA, WB, pair	H01426M
SAA	MAb	ELISA, WB, pair	H01427M
SAA	MAb	ELISA, WB, pair	H01429M
SAA	MAb	ELISA, WB, pair	H01430M
SAA	Ag (Rec.)	ELISA, pair	R01771
Thyroid Stimulating Hormone (TSH)			
Beta subunit	MAb	ELISA, WB, pair	E01369M
Beta subunit	MAb	ELISA, WB, pair	E01370M
Thyroglobulin			
Thyroglobulin	Ag (Native)	ELISA	A01725C





Antigens & Antibodies for Immunoassays

Description	Type	Application	Cat #
			
Cystatin C			
Cystatin C	MAb	ELISA, pair	H01431M
Cystatin C	MAb	ELISA, pair	H01303M
Cystatin C	MAb	ELISA, pair	H86217M
Feline Immunodeficiency Virus (FIV)			
Core Antigen	Ag (Rec.)	ELISA, LF	R65360
FIV	Ag	ELISA	A01731F
Feline Leukemia Virus (FeLV)			
Glycoprotein 70 (gp70)	MAb	ELISA, IFA	C65712M
p27 Protein	MAb	ELISA, WB, pair	C01995M
p27 Protein	MAb	ELISA, WB, pair	C01996M
p27 Protein	PAb (Goat)	WB	B65221G
p27 Protein	PAb (Goat)	ELISA, IFA, WB	C01997G
p27 Protein (a.a. 272 - 519)	Ag (Rec.)	ELISA, WB	R01776
Parvovirus			
Parvovirus	Ag (Lysate)	ELISA	A01728F
Serum Amyloid A (SAA)			
SAA	MAb	ELISA, WB, pair	H01381M
SAA	MAb	ELISA, WB, pair	H01383M
SAA	MAb	ELISA, WB, pair	H01425M
SAA	MAb	ELISA, WB, pair	H01426M
SAA	MAb	ELISA, WB, pair	H01427M
SAA	Ag (Rec.)	ELISA	R01774

Description	Type	Application	CAT #
			
Infectious Bronchitis Virus (IBV)			
Nucleoprotein	MAb	ELISA, WB	C01530M
Infectious Bursal Disease (IBDV)			
VP2 Protein	MAb	ELISA, WB, pair	C01524M
VP2 Protein	MAb	ELISA, WB, pair	C01526M
VP3 Protein	MAb	ELISA, WB, IHC, pair	C01525M
VP3 Protein	MAb	ELISA, WB, IHC, pair	C01528M
Influenza A H5 (H1H5)			
Hemagglutinin H5	MAb	ELISA, DB, HIA, pair	C86240M
Hemagglutinin H5	MAb	ELISA, pair	C01309M
Influenza A H7 (H1H7)			
Hemagglutinin H7	MAb	ELISA, WB	C01610M
Hemagglutinin H7	MAb	ELISA, WB	C01611M
Marek Disease Virus			
Serotypes 1, 2 & 3	MAb	ELISA	C01264M
Serotypes 1, 2 & 3	MAb	ELISA	C01267M
Serotypes 1, 2 & 3	MAb	ELISA	C01268M
Newcastle Disease Virus (NVD)			
HN Glycoprotein	MAb	ELISA, HIA	C86012M
HN Glycoprotein	MAb	ELISA, HIA	C86014M
HN Glycoprotein	MAb	ELISA, HIA, WB	C86015M
HN Glycoprotein	MAb	ELISA, HIA, WB	C86016M
HN Glycoprotein	MAb	ELISA, HIA	C01351M
HN Glycoprotein	MAb	ELISA	C01352M
Ribonucleoprotein	MAb	ELISA, IFA, IHC	C01629M

Antigens & Antibodies for Immunoassays

Description	Type	Application	Cat #
			
Burkholderia (<i>Pseudomonas</i>) mallei			
Whole cells	MAB	Indirect ELISA	C01752M
LPS	MAB	ELISA, WB	C02021M
LPS	MAB	ELISA, WB	C86315M
Cystatin C			
Cystatin C	MAB	ELISA, pair	H01303M
Cystatin C	MAB	ELISA, pair	H86013M
Cystatin C	MAB	ELISA, pair	H01431M
Serum Amyloid A (SAA)			
SAA	MAB	ELISA, WB, pair	H01381M
SAA	MAB	ELISA, WB, pair	H01383M
SAA	MAB	ELISA, WB, pair	H01384M
SAA	MAB	ELISA, WB, pair	H01382M
SAA	MAB	ELISA, WB, pair	H01425M
SAA	MAB	ELISA, WB, pair	H01426M
SAA	MAB	ELISA, WB, pair	H01427M
SAA	MAB	ELISA, WB, pair	H01429M
SAA	MAB	ELISA, WB, pair	H01430M
SAA	Ag (Rec.)	ELISA, pair	R01773

Description	Type	Application	CAT #
			
Suitable for use with dog, bovine, monkey and rat serum			
Adenovirus Hexon			
Hexon Antigen	MAB	ELISA, IHC, ID, pair	C86804M
Hexon Antigen of 1, 5, 8 & 27	MAB, biconal	ELISA, LF, pair	C86006M
Hexon Antigen of 1, 5, 8 & 27	MAB, biconal	ELISA, ID, pair	C86007M
Borrelia (Lyme Disease)			
<i>B. burgdorferi garinii</i>	MAB	ELISA, IFA, WB	C86420M
<i>B. afzelii</i>	Ag (Lysate)	ELISA, WB	R14210
<i>B. afzelii</i> VlsE	Ag (Rec.)	ELISA, LF, CLIA, WB	R01609
<i>B. burgdorferi</i> VlsE, multi-epitope chimera	Ag (Rec.)	ELISA, DB, WB	R01523
<i>B. garinii</i> p14 antigen (flagellin)	Ag (Rec.)	ELISA, LF, CLIA, BD, WB	R01521
<i>B. garinii</i> VlsE	Ag (Rec.)	ELISA, LF, CLIA, WB	R01610
Cryptosporidium parvum			
<i>C. parvum</i>	MAB	ELISA, LF, WB, pair	C02007M
<i>C. parvum</i>	MAB	ELISA, LF, WB, pair	C02008M
Rabies			
Rabies	MAB	Virus Neut., ELISA, IHC, IFA	C86307M



Animal IgG – Passive Blockers

- Suited for mixed species assays (e.g. MAb/PAb)
- Species of blocker must be the same as the host of the capture or detection antibody

Mouse IgG

A66186M (9-13mg/mL)
 A66185M (50-55mg/mL)
 A66189M (45-55mg/mL, No Azide)
 A66185M-LY (Lyophilized)

Goat IgG

A66200H

Rat IgG

A64391R

Chicken IgY

A01302C (Lyophilized)

Rabbit IgG

A66100H

Sheep IgG

A66400S (70-77mg/mL, Liquid)

Passive blocking reagents work by preventing interfering antibodies from binding to the capture or detection antibodies by providing alternate binding sites. Animal IgG (e.g. Goat IgG) can only block one type of interference (e.g. human anti-goat antibodies) so typically more than one type must be used, depending on the host of both the capture and detection antibodies. Animal IgG must be added in excess concentration and the effectiveness depends on the affinity of interfering antibody for the animal IgG.

RECOMMENDED CONCENTRATION:

- 10x the concentration of the MAb/PAb being used in the assay (e.g. if 5µg/mL of Ab/conjugate, add 50µg/mL Animal IgG).
- Can be added to the sample or conjugate diluent but ideally should be in contact with the patient sample before incubation with the assay capture antibody.

TRU Block™ – Active HAMA & RF Blocker

- Suited for double mouse monoclonal assays
- Removes HAMA, HA & RF interference

TRU Block™ Ready

8001

TRU Block™ Ultra

8000

TRU Block™

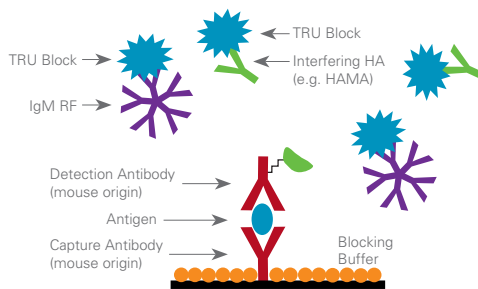
A66800H

TRU Block™ 2

A66802H

TRU Block™ 3

A66803H



*Formulations differ in their ratio of various proprietary ingredients that confers unique blocking characteristics.



In double mouse monoclonal assays, a specific blocker is required to remove a particular type of HA interference called human anti-mouse antibodies (HAMA) and Rheumatoid Factor (RF). A HAMA blocker contains a specific binder directed against all types of heterophilic interference including HAMA and RF. Once bound to the interfering antibodies, TRU Block prevents further binding of HA to other assay components through steric hindrance. Active blockers can typically be used in lower concentrations than passive blocking reagents, which minimizes the reduction in assay signal commonly associated with passive blockers.

RECOMMENDED CONCENTRATION:

For best performance, TRU Block should be included as part of the sample or conjugate diluent, at a recommended concentration range:

Product	Protein Concentration	Application
TRU Block™ Ready	Single-step dilution with recommended dilution of 1:1000 to 1:10	ELISA & LF
TRU Block™ ULTRA	Range: 24-26 mg/mL	ELISA, CLIA & LF
TRU Block™	Range: 24-26 mg/mL	ELISA & CLIA
TRU Block™ 2	Range: 24-26 mg/mL	CLIA & LF
TRU Block™ 3	24.3 mg/mL	ELISA

Pairs

	Capture Antibody	Detection Antibody	Antigen	Application		Capture Antibody	Detection Antibody	Antigen	Application
Adenovirus	C86804M	C86006M			Infectious Bursal Disease (IBDV)	C01524M	C01526M		
	C86007M	C86006M				C01525M	C01528M		
<i>C. parvum</i>	C02008M	C02007M			Nipah Virus	C01975M	C01974M	R01766	
Canine Distemper Virus	C01986M	C01988M			Parvovirus	C02003M	C02004M		
	C01987M	C01988M				C86005M	C86004M	R01770	
	C01990M	C01989M				Porcine Epidemic Diarrhea Virus (PEDV)	C02006M	C02005M	R01778
	C86504M	C86801M							
Coronavirus	C01998M	C01998M				H01381M	H01383M		
	C02000M	C02001M				H01426M	H01425M	R01771	
	C02010M	C02009M				H01426M	H01425M	R01773	
	C02009M	C20211G				H01426M	H01425M	R01773	
	C02010M	C20211G				H01427M	H01425M	R01771	
	C01999M	C01998M				H01427M	H01425M	R01773	
CRP	M01347M	M01345M	R01772		Serum Amyloid A (SAA)	H01427M	H01425M	R01773	
	M01348M	M01345M	R01772			H01427M	H01425M	R01774	
Cystatin C	H01303M	H86013M				H01429M	H01384M	R01771	
	H01304M	H01303M				H01429M	H01384M	R01773	
	H01431M	H01303M				H01429M	H01383M	R01771	
	H01431M	H86217M				H01429M	H01383M	R01773	
Feline Leukemia Virus (FeLV)	C01996M	C01995M				H01384M	H01430M	R01771	
						H01384M	H01430M	R01773	
H1H5	C01309M	C86240M				H01382M	H01384M		
Heartworm	C01994R	C01991M				Trichomonas foetus	C01573M	C01572M	
	C01992M	C01992M			TSH	E01370M	E01369M		
	C01993M	C01992M							

Canine
 Bovine
 Equine
 Avian
 Feline
 Swine
 Multi-species

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