



simplexa **LIAISON[®] MDX**

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The Diagnostic Specialist



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Product availability subject to required regulatory approvals.

FOR OUTSIDE THE US AND/OR CANADA ONLY

The quality of treatment starts with diagnosis

International Molecular Product MENU

Simplexa™ Molecular Kits

LIAISON® MDX

Molecular Reagents

Primer Pairs

05MOLMENU1217



About the LIAISON[®] MDX

The LIAISON[®] MDX is an innovative and powerful thermocycler with two consumable disc options: the 8-well Direct Amplification Disc for sample-to-answer testing and the 96-well Universal Disc for higher volume testing.

Supported by an expanding menu of molecular assays, the LIAISON[®] MDX is flexible allowing you to run real-time PCR for qualitative, quantitative and multi-analyte detection. The instrument performs both IVD as well as Laboratory Developed Tests.

The LIAISON[®] MDX software provides easy to understand results with the ability to check amplification curves after a run. The software plots QC Charts and can be bi-directionally interfaced with LIS for easy integration into any lab workflow. You can also access and navigate the software during a run.

The instrument is compact and expandable, with an extremely small footprint and the capability to connect up to four instruments with a single laptop.

The LIAISON[®] MDX is:

- **Compact:** Measuring only 31x21x31cm, the LIAISON[®] MDX uses minimal laboratory space.
- **Powerful:** Results are generated in as fast as one hour and are easy to interpret for quick and accurate diagnosis.
- **Expandable:** The LIAISON[®] MDX can be used with two different consumable discs allowing for versatility in handling differing volumes such as with seasonal assays. The 8-well Direct Amplification Disc allows for sample-to-answer testing and the 96-well Universal Disc for higher volume testing.



Primer Pairs* – Bacterial/Fungal Infectious Diseases

PRODUCT#	PRIMER PAIR NAME	GENE TARGET	FLUOR	VOLUME
MOL9026	<i>C. difficile</i>	Toxin B	FAM (520)	50µL
MOL9023	<i>C. pneumoniae</i>	Cpn0980	FAM (520)	50µL
MOL9400	<i>C. pneumoniae II</i>	Cpn0980	JOE (560)	25µL
MOL9033	Group A Strep	Exotoxin B	FAM (520)	50µL
MOL9047	Group B Strep	CFB	CFR 610	50µL
MOL9093	Group C Strep	CPN	CFR 610	50µL
MOL9094	Group G Strep	mrcB	JOE (560)	50µL
MOL9035	KPC	<i>bla</i> _{KPC}	FAM (520)	50µL
MOL9034	<i>L. pneumophila</i>	<i>pmlA</i>	CFR 610	50µL
MOL9013	<i>M. pneumoniae</i>	P1	FAM (520)	50µL
MOL9098	<i>P. jirovecii</i>	mtLSU	CFR 610	25µL
MOL9025	<i>T. gondii</i>	B1	FAM (520)	50µL

Primer Pairs* – Genetics

PRODUCT#	PRIMER PAIR NAME	GENE TARGET	FLUOR	VOLUME
MOL9052	Prothrombin (FII) Mutant	G20210A	Q 670	50µL
MOL9053	Prothrombin (FII) Wild Type	G20210WT	JOE (560)	50µL
MOL9050	Factor V Leiden Mutant	G1691A	CFR 610	50µL
MOL9051	Factor V Wild Type	G1691WT	FAM (520)	50µL
MOL9054	MTHFR 677 Mutant	C677T	CFR 610	50µL
MOL9055	MTHFR 677 Wild Type	Nucleotide 677	FAM (520)	50µL
MOL9056	MTHFR 1298 Mutant	A1298C	Q 670	50µL
MOL9057	MTHFR 1298 Wild Type	Nucleotide 1298	JOE (560)	50µL

Primer Pairs* – High Volume

PRODUCT#	PRIMER PAIR NAME	GENE TARGET	FLUOR	VOLUME
MOL9307	<i>B. paraptussis</i>	IS1001 Insertion	CFR 610	200µL
MOL9306	<i>B. pertussis</i>	IS481 Insertion	FAM (520)	200µL
MOL9333	Group A Strep	Exotoxin B	FAM (520)	1000µL
MOL9333-5	Group A Strep	Exotoxin B	FAM (520)	5 x 1000µL
MOL9337	HSV-1 Gen II	HSV-1 DNA Polymerase	CFR 610	200µL
MOL9304	HSV-2	HSV-2 DNA Polymerase	FAM (520)	200µL
MOL9324	VZV	DNA Polymerase	JOE (560)	200µL

*Analyte specific reagent. Analytical and performance claims have not been established. Not FDA cleared or approved.



Primer Pairs* – Viral Infectious Diseases

PRODUCT#	PRIMER PAIR NAME	GENE TARGET	FLUOR	VOLUME
MOL9011	Adenovirus 3' Hexon	3' Hexon Polypeptide	FAM (520)	50µL
MOL9012	Adenovirus 5' Hexon	5' Hexon Polypeptide	FAM (520)	50µL
MOL9009	BKV	VP2	FAM (520)	50µL
MOL9039	Chikungunya	Alphavirus E1 Glycoprotein	FAM (520)	50µL
MOL9002	CMV	UL83	FAM (520)	50µL
MOL9041	Dengue Virus 1	NS5	FAM (520)	50µL
MOL9042	Dengue Virus 2	NS3	CFR 610	50µL
MOL9043	Dengue Virus 3	NS5	FAM (520)	50µL
MOL9044	Dengue Virus 4	Capsid	CFR 610	50µL
MOL9008	EBV	LMP2A	FAM (520)	50µL
MOL9020	Enterovirus	5' Non-Coding Region	FAM (520)	50µL
MOL9022	HHV-6	P100	FAM (520)	50µL
MOL9029	hMPV	F gene	FAM (520)	50µL
MOL9037	HSV-1 Gen II	HSV-1 DNA Polymerase	CFR 610	50µL
MOL9004	HSV-2	HSV-2 DNA Polymerase	FAM (520)	50µL
MOL9016	Influenza A	Matrix	FAM (520)	50µL
MOL9017	Influenza B	Matrix	JOE (560)	50µL
MOL9021	JCV	VP2/3	CFR 610	50µL
MOL9027	Norovirus I	ORF1/ORF2	CFR 610	50µL
MOL9028	Norovirus II	ORF1/ORF2	FAM (520)	50µL
MOL9030	Parainfluenza 1	HN	FAM (520)	50µL
MOL9031	Parainfluenza 2	HN	JOE (560)	50µL
MOL9032	Parainfluenza 3	HN	CFR 610	50µL
MOL9038	Parechovirus	5' Untranslated Region	CFR 610	50µL
MOL9019	Parvovirus	VP1	FAM (520)	50µL
MOL9014	RSV	Matrix	CFR 610	50µL
MOL9024	VZV	DNA Polymerase	JOE (560)	50µL



Primer Pairs* – Bacterial/Fungal Infectious Diseases

PRODUCT#	PRIMER PAIR NAME	GENE TARGET	FLUOR	VOLUME
MOL9036	<i>B. holmesii</i>	hIS1001 Insertion	JOE (560)	50µL
MOL9007	<i>B. parapertussis</i>	IS1001 Insertion	CFR 610	50µL
MOL9006	<i>B. pertussis</i>	IS481 Insertion	FAM (520)	50µL
MOL9015	Borrelia	FlaA	FAM (520)	50µL

*Analyte specific reagent. Analytical and performance claims have not been established. Not FDA cleared or approved.

One Instrument. Multiple Discs. Ultimate Flexibility.

8 wells

Direct Amplification Disc

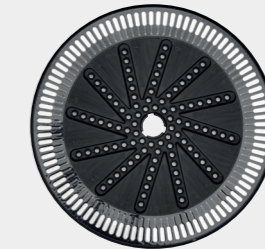
1. Direct amplification of sample – no DNA/RNA extraction required.
2. Convenient sample processing – the ability to run from 1 to 8 samples at a time and re-run the disc with unused wells.
3. Sample metering capabilities to ensure correct sample inputs.
4. Fluid checks are performed to ensure sample addition which prevents false negatives if a sample is accidentally not loaded.
5. Generates results that are easy to understand in as little as an hour.



96 wells

Universal Disc

1. Process up to 96 samples in as little as an hour.
2. The ability to process multiple targets simultaneously.
3. Small reaction volume – only use a maximum of 10 µL.
4. Open channel availability.
5. Can be used with extracted DNA/RNA or non-extracted samples.



LIAISON® MDX Instrument and Consumables

PRODUCT#	PRODUCT NAME	QUANTITY
MOL1001	LIAISON® MDX 110V laptop computer, accessories box, and optional printer.	1
MOL1011	LIAISON® MDX 220V laptop computer, accessories box, and optional printer.	1
MOL1100	Accessories Box <i>Includes:</i> Ethernet Cable (MOL1102), Bar Code Scanner (MOL1103), Mouse Pad (MOL1104), 2x Universal Disc Loading Block (MOL1105), 2x Disc Film Applicator (MOL1106), Laptop Security Cable (MOL1109) UK power cord for LIAISON® MDX (MOL1012), UK power cord for Dell Laptop (MOL1201) EU power cord for Dell laptop (MOL1202).	1
MOL1401	Simplexa™ Universal Disc - Boxes	25
MOL1400	Simplexa™ Universal Disc - Case	100
MOL1500	Universal Disc Cover Tape	250
MOL1455 MOL1451	Direct Amplification Disc (DAD)	3 24
MOL1550	Replacement Foil Wedges for DAD	48





Simplexa™ Direct Kits – for use on Direct Amplification Disc

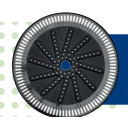
PRODUCT#	PRODUCT NAME	REACTIONS/KIT
MOL2750	Simplexa™ Bordetella Direct Kit* A real-time PCR assay for the <i>in vitro</i> qualitative detection and differentiation of <i>Bordetella pertussis</i> and <i>Bordetella parapertussis</i> from nasopharyngeal swabs. Does not require extraction.	24
MOL2760	Simplexa™ Bordetella Positive Control Pack Inactivated <i>B. pertussis</i> and <i>B. parapertussis</i> bacteria.	10 x 100µL
MOL2950	Simplexa™ C. difficile Direct Kit* A real-time PCR assay for the <i>in vitro</i> qualitative detection of <i>Clostridium difficile</i> toxin B gene (tcdB) present in liquid or unformed stool samples from individuals suspected of <i>C. difficile</i> infection (CDI). Does not require extraction. To be used in conjunction with Sample Preparation Kit (25 units, MOL5290).	24
MOL2960	Simplexa™ C. difficile Positive Control Pack Inactivated <i>C. difficile</i> bacteria.	10 x 100µL
MOL5290	Simplexa™ C. difficile Sample Prep Kit Sample preparation kit for use with the Simplexa™ <i>C. difficile</i> Direct Kit (MOL2950).	25
MOL2650	Simplexa™ Flu A/B & RSV Direct Kit* A real-time RT-PCR assay for the <i>in vitro</i> qualitative detection and differentiation of influenza A, influenza B, and respiratory syncytial virus (RSV). Does not require extraction.	24
MOL2660	Simplexa™ Flu A/B & RSV Positive Control Pack Inactivated influenza A virus, inactivated influenza B virus, and inactivated RSV.	10 x 100µL
MOL2850	Simplexa™ Group A Strep Direct Kit* A real-time PCR assay for the <i>in vitro</i> qualitative detection of Group A <i>Streptococcus</i> bacterial DNA. Does not require extraction.	24
MOL2860	Simplexa™ Group A Strep Positive Control Pack Inactivated Group A <i>Streptococcus</i> bacteria.	10 x 100µL
MOL2150	Simplexa™ HSV 1 & 2 Direct Kit* A real-time PCR assay for the <i>in vitro</i> qualitative detection and differentiation of HSV1 and HSV2 present in CSF, cutaneous and mucocutaneous swab specimens. Does not require extraction.	24
MOL2160	Simplexa™ HSV 1 & 2 Positive Control Pack Inactivated HSV 1 & 2 viruses.	10 x 100µL

*To be used with Direct Amplification discs (3 DAD discs, MOL1455).



Simplexa™ Universal Direct Kit – for direct amplification on the Universal Disc

PRODUCT#	PRODUCT NAME	REACTIONS/KIT
MOL2975	Simplexa™ C. difficile Universal Direct Kit A real-time PCR assay for the <i>in vitro</i> qualitative direct detection of the toxin B gene (tcdB) of <i>C. difficile</i> . Does not require extraction.	100
MOL2700 MOL2775	Simplexa™ Bordetella Universal Direct Kit A real-time PCR assay for the <i>in vitro</i> qualitative direct detection and differentiation of <i>Bordetella pertussis</i> and <i>Bordetella parapertussis</i> . Does not require extraction.	100 1000



Simplexa™ Kits - for use on the Universal Disc

PRODUCT#	PRODUCT NAME	REACTIONS/KIT
MOL2600	Simplexa™ Flu A/B & RSV Kit A real-time RT-PCR assay for the <i>in vitro</i> qualitative detection and differentiation of influenza A, influenza B, and respiratory syncytial virus (RSV).	100
MOL2500	Simplexa™ Influenza A H1N1 (2009) Kit A real-time RT-PCR assay for the <i>in vitro</i> qualitative detection and differentiation of seasonal influenza A and 2009 H1N1 influenza.	100
MOL2200	Simplexa™ CMV Kit A real-time PCR assay for the <i>in vitro</i> quantitation of cytomegalovirus (CMV).	100
MOL3100	Simplexa™ Dengue Kit A real-time PCR assay for the <i>in vitro</i> detection and typing of dengue virus serotypes 1, 2, 3 and 4.	100
MOL2400	Simplexa™ EBV Kit A real-time PCR assay for the <i>in vitro</i> quantitation of Epstein-Barr virus (EBV).	100

Simplexa™ Quantitation Standards

PRODUCT#	PRODUCT NAME	VOLUME
MOL2210	Simplexa™ CMV Quantitation Standards Intended to establish a standard curve with the Simplexa™ CMV assay. Includes 5 vials; each vial contains 400µL.	5 x 400µL
MOL2410	Simplexa™ EBV Quantitation Standards Intended to establish a standard curve with the Simplexa™ EBV assay. Includes 5 vials; each vial contains 400µL.	5 x 400µL

Simplexa™ Molecular Controls

PRODUCT#	PRODUCT NAME	VOLUME
MOL8011	Simplexa™ Adenovirus Molecular Control Inactivated adenovirus in human base matrix.	2 x 250µL
MOL8009	Simplexa™ BKV Molecular Control DNA fragment of a well conserved region of BKV VP2 gene in human base matrix.	2 x 250µL
MOL8006	Simplexa™ Bordetella Molecular Control DNA fragment containing both the IS481 and IS1001 target regions.	2 x 50µL
MOL2760	Simplexa™ Bordetella Positive Control Pack Inactivated <i>B. pertussis</i> and <i>B. parapertussis</i> bacteria.	10 x 100µL
MOL2960	Simplexa™ C. difficile Positive Control Pack Inactivated <i>C. difficile</i> bacteria.	10 x 100µL
MOL8002	Simplexa™ CMV Molecular Control DNA fragment containing a well conserved region of CMV UL83 gene in human base matrix. Not intended for donor screening.	2 x 250µL
MOL3103C	Simplexa™ Dengue Molecular Control Inactivated dengue virus including serotypes 1, 2, 3 and 4.	2 x 800µL
MOL8008	Simplexa™ EBV Molecular Control DNA fragment of a well conserved region of EBV LMP2A gene in human base matrix.	2 x 250µL
MOL2660	Simplexa™ Flu A/B & RSV Positive Control Pack Inactivated influenza A virus, inactivated influenza B virus, and inactivated RSV.	10 x 100µL
MOL8033	Simplexa™ Group A Streptococcus Molecular Control Inactivated Group A <i>Streptococcus</i> bacteria.	1 x 100µL
MOL2860	Simplexa™ Group A Streptococcus Positive Control Pack Inactivated Group A <i>Streptococcus</i> bacteria.	10 x 100µL
MOL2160	Simplexa™ HSV 1 & 2 Positive Control Pack Inactivated HSV 1 & 2 viruses.	10 x 100µL

Simplexa™ Process controls

PRODUCT#	PRODUCT NAME	REACTIONS/KIT
MOL9000 MOL9300	Simplexa™ Extraction and Amplification Control Set This set consists of a DNA template and labeled primer pair intended to be used as a process control to detect systemic variation that may arise during the extraction and amplification steps of real time PCR assays.	100 1000
MOL9200	Simplexa™ Extraction and Amplification Control Set – RNA This set consists of a RNA template and a labeled primer pair intended to be used as a process control to detect systemic variation that may arise during the extraction and amplification steps of real-time RT-PCR assays.	100

Molecular Reagents

PRODUCT#	PRODUCT NAME	VOLUME
MOL9010 MOL9310	2.5X Universal Master Mix Developed for low reaction volume applications and supplied in a 2.5X concentration solution. Contains all of the necessary PCR components (enzyme, dNTPs, buffer, MgCl ₂).	2 x 200µL 1 x 860µL
MOL9060G	HS (High Salt) Master Mix A high salt PCR master mix supplied in a 2.5X concentration solution. Contains all of the necessary PCR components (enzyme, dNTPs, buffer, MgCl ₂ , KCl).	4 x 200µL
MOL9070 MOL9370	TA (Temperature Activated) Master Mix A temperature activated PCR master mix supplied in a 2.5X concentration solution. Enzyme activity is blocked until heat activated during the initial PCR step. Contains all of the necessary PCR components (enzyme, dNTPs, buffer, MgCl ₂).	2 x 200µL 1 x 440µL
MOL9018	Reverse Transcriptase Buffered enzyme to transcribe RNA templates into cDNA.	1 x 50µL