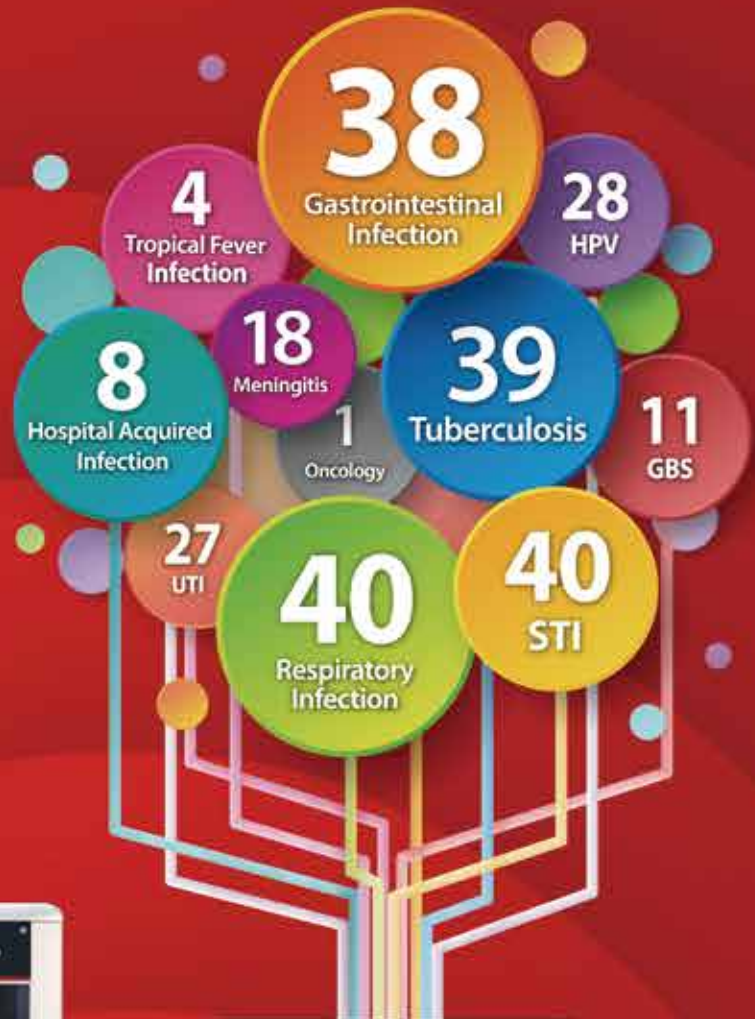


Seegene's product pipeline

All MDx assays in one real-time PCR platform

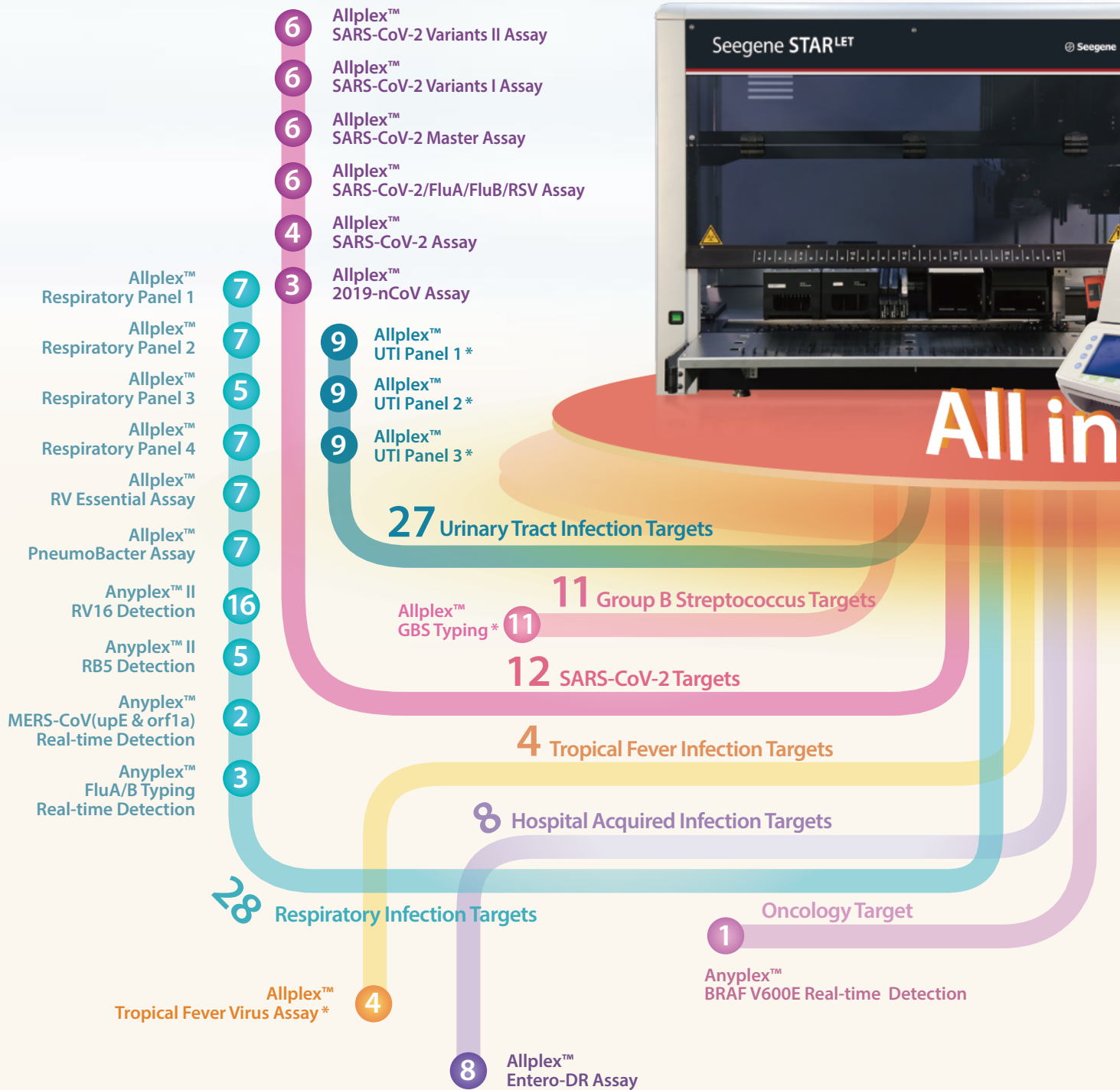
- SARS-CoV-2
- Respiratory Infection
- Tuberculosis
- Sexually Transmitted Infection
- Human Papillomavirus
- Gastrointestinal Infection
- Hospital Acquired Infection
- Meningitis
- Urinary Tract Infection
- Group B Streptococcus Typing
- Oncology
- Tropical Fever Infection
- Dermatophyte Infection



Seegene's High multiplex real-time PCR products

All MDx assays in one platform

All-in-One system is able to process multiple molecular diagnostic assays in one consolidated platform



* In development



One

- Allplex™ STI Essential Assay Q(MH,UU) 7
- Allplex™ STI Essential Assay 7
- Allplex™ Genital ulcer Assay 7
- Allplex™ Candidiasis Assay 7
- Allplex™ Bacterial Vaginosis Assay 7
- Allplex™ Bacterial Vaginosis *plus* Assay 7
- Allplex™ CT/NG/MG/TV Assay 4
- Allplex™ MG & AziR Assay 7
- Allplex™ MG & MoxiR Assay 7
- Allplex™ Vaginitis Screening Assay 7
- Anyplex™ II STI-7 Detection 7
- Anyplex™ II STI-5 Detection 5
- Anyplex™ CT/NG Real-time Detection 2
- Anyplex™ II MTB/MDR Detection 26
- Anyplex™ MTB/XDR Detection 14
- Anyplex™ MTB/NTMe Real-time Detection 2
- Anyplex™ II MTB/MDR Detection 26
- Anyplex™ II MTB/XDR Detection 14
- Anyplex™ II MTB/MDR/XDR Detection 39
- Anyplex™ MTB/NTM Real-time Detection 2

40 Sexually Transmitted Infection Targets

40 Tuberculosis Targets

38 Gastrointestinal Infection Targets

18 Meningitis Targets

7 Dermatophyte Infection Targets

7 Allplex™ Dermatophyte Assay*

28 Human Papillomavirus Viruses

14 Anyplex™ II HPV28 Detection
28 Anyplex™ II HPV HR Detection

- Allplex™ GI-EB Screening Assay 7
- Allplex™ GI-Virus Assay 6
- Allplex™ GI-Bacteria(I) Assay 7
- Allplex™ GI-Bacteria(II) Assay 6
- Allplex™ GI-Parasite Assay 6
- Allplex™ GI-Helminth(I) Assay 9
- Allplex™ H. pylori & ClariR Detection 4

Explore a Broad Menu of Molecular Diagnostic Assays

Broad menu of multiplex molecular diagnostic assays in one real-time PCR platform



Respiratory Infection

Allplex™ SARS-CoV-2 Variants II Assay			RV10259X / RV10260Y	
Analytes	SARS-CoV-2 (S gene) variants: - W152C - K417N - K417T - L452R	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate - Oropharyngeal swab	- Bronchoalveolar lavage - Sputum - Saliva
Allplex™ SARS-CoV-2 Variants I Assay			RV10286X / RV10287Y	
Analytes - SARS-CoV-2 (RdRP gene)	SARS-CoV-2 (S gene) variants: - HV69/70 deletion - E484K - N501Y	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate - Oropharyngeal swab	- Bronchoalveolar lavage - Sputum - Saliva
Allplex™ SARS-CoV-2 Master Assay			RV10284X / RV10285Y	
Analytes - <i>Sarbecovirus</i> (E gene) - SARS-CoV-2 (RdRP/S gene) - SARS-CoV-2 (N gene)	- SARS-CoV-2 (S gene) variants: HV69/70 deletion, Y144 deletion, E484K, N501Y, P681H	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate - Oropharyngeal swab	- Bronchoalveolar lavage - Sputum - Saliva
Allplex™ SARS-CoV-2/FluA/FluB/RSV Assay			RV10259X / RV10260Y	
Analytes - SARS-CoV-2 (N gene) - SARS-CoV-2 (S gene) - SARS-CoV-2 (RdRP gene) - RSV A/B	- Flu A - Flu B	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate - Oropharyngeal swab	- Bronchoalveolar lavage - Sputum - Saliva
Allplex™ SARS-CoV-2 Assay			RV10248X / RV10247Y	
Analytes - SARS-CoV-2 (N gene) - SARS-CoV-2 (S gene) * S gene and RdRP gene are both detected in 1 signal.	- SARS-CoV-2 (RdRP gene) - <i>Sarbecovirus</i> (E gene)	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate - Oropharyngeal swab	- Bronchoalveolar lavage - Sputum - Saliva
Allplex™ 2019-nCoV Assay			RP10243X / RP10244Y	
Analytes - <i>Sarbecovirus</i> (E gene) - SARS-CoV-2 (RdRP gene)	- SARS-CoV-2 (N gene)	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate - Oropharyngeal swab	- Bronchoalveolar lavage - Sputum
Allplex™ Respiratory Panel 1			RP9801X / RP9801Y / RP10179Z	
Analytes - Flu A - Flu B	- Flu A-H1 - Flu A-H1pdm09 - Flu A-H3	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate	- Bronchoalveolar lavage
Allplex™ Respiratory Panel 2			RP9802X / RP9802Y / RP10180Z	
Analytes - Adenovirus - Enterovirus - MPV	- PIV 1 - PIV 2	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate	- Bronchoalveolar lavage
Allplex™ Respiratory Panel 3			RP9601X / RP9601Y / RP10181Z	
Analytes - Bocavirus - Rhinovirus A/B/C	- CoV 229E - CoV NL63	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate	- Bronchoalveolar lavage
Allplex™ Respiratory Panel 4			RP9803X / RP9803Y / RP10182Z	
Analytes - <i>M. pneumoniae</i> - <i>S. pneumoniae</i> - <i>C. pneumoniae</i>	- <i>B. pertussis</i> - <i>L. pneumophila</i>	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate	- Bronchoalveolar lavage - Sputum
Allplex™ RV Essential Assay			RV9750X / RV9750Y	
Analytes - Flu A - Flu B - MPV	- Adenovirus - Rhinovirus	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate	- Bronchoalveolar lavage
Allplex™ PneumoBacter Assay			PB10176X / PB10175Y / PB10185Z	
Analytes - <i>M. pneumoniae</i> - <i>S. pneumoniae</i> - <i>C. pneumoniae</i>	- <i>B. pertussis</i> - <i>L. pneumophila</i>	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate	- Bronchoalveolar lavage - Sputum

Anyplex™ II RV16 Detection				RV7G01X / RV7G01Y	
Analytes	- Flu A - Flu B - Rhinovirus A/B/C - CoV 229E - CoV NL63 - CoV OC43	- Adenovirus - Enterovirus - RSV A - RSV B - MPV	- PIV 1 - PIV 2 - PIV 3 - PIV 4 - Bocavirus 1/2/3/4	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate - Bronchoalveolar lavage

Anyplex™ II RB5 Detection				RB7500X / RB7500Y	
Analytes	- <i>M. pneumoniae</i> - <i>L. pneumophila</i>	- <i>B. pertussis</i> - <i>B. parapertussis</i>	- <i>C. pneumoniae</i>	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate - Sputum (not applicable on NIMBUS IVD, STARlet IVD) - Bronchoalveolar lavage

Anyplex™ FluA/B Typing Real-time Detection				RV7310X	
Analytes	- 2009 pandemic H1	- Flu A	- Flu B	Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate - Bronchoalveolar lavage

Anyplex™ MERS-CoV(upE & orf1a) Real-time Detection				RV7201X / RV7201Y	
Analytes	- upE gene	- orf1a gene		Specimens	- Nasopharyngeal swab - Nasopharyngeal aspirate - Bronchoalveolar lavage - Sputum

Tuberculosis

Anyplex™ II MTB/MDR Detection				TB7301Y	
Analytes	- MTB	Multi-drug resistance - Isoniazid-resistance (7 mutations) - Rifampicin-resistance (18 mutations)		Specimens	- Sputum - Cultured cell - Bronchial washing - Fresh tissue

Anyplex™ II MTB/XDR Detection				TB7302Y	
Analytes	- MTB	Extensive drug resistance - Fluoroquinolone resistance (7 mutations) - Injectable drug resistance (6 mutations)		Specimens	- Sputum - Cultured cell - Bronchial washing - Fresh tissue

Anyplex™ II MTB/MDR/XDR Detection				TB7500Y	
Analytes	- MTB	- Multi-drug resistance (25 mutations) - Extensive drug resistance (13 mutations)		Specimens	- Sputum - Cultured cell - Bronchial washing - Fresh tissue

Anyplex™ MTB/NTMe Real-time Detection				TB7202X / TB7202Y	
Analytes	- MTB	- <i>Mycobacteria</i>		Specimens	- Sputum - Cultured cell - Bronchial washing - Fresh tissue

Anyplex™ MTB/NTM Real-time Detection				TB7200X / TB10218Y	
Analytes	- MTB	- <i>Mycobacteria</i>		Specimens	- Sputum - Cultured cell - Bronchial washing - Fresh tissue

Allplex™ MTB/MDRe Detection				TB9400X / TB9400Y	
Analytes	- MTB	Multi-drug resistance - Isoniazid-resistance (7 mutations) - Rifampicin-resistance (18 mutations)		Specimens	- Sputum - Cultured cell - Bronchial washing - Fresh tissue

Allplex™ MTB/XDRe Detection				TB9500X / TB9500Y	
Analytes	- MTB	Extensive drug resistance - Fluoroquinolone resistance (7 mutations) - Injectable drug resistance (6 mutations)		Specimens	- Sputum - Cultured cell - Bronchial washing - Fresh tissue

Sexually Transmitted Infection

Allplex™ STI Essential Assay				SD9801X / SD9801Y / SD10245Z	
Analytes	- <i>C. trachomatis</i> - <i>T. vaginalis</i> - <i>N. gonorrhoeae</i>	- <i>U. urealyticum</i> - <i>M. genitalium</i>	- <i>U. parvum</i> - <i>M. hominis</i>	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Genital swab - Urine

Allplex™ Genital ulcer Assay				SD9802X / SD9802Y / SD10177Z	
Analytes	- LGV - <i>T. pallidum</i> - <i>H. ducreyi</i>	- HSV1 - HSV2	- CMV - VZV	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Genital swab - Urine

Allplex™ Candidiasis Assay				SD9803X / SD9803Y / SD10178Z	
Analytes	- <i>C. albicans</i> - <i>C. krusei</i> - <i>C. glabrata</i>	- <i>C. lusitanae</i> - <i>C. tropicalis</i>	- <i>C. dubliniensis</i> - <i>C. parapsilosis</i>	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Genital swab - Urine

Allplex™ Bacterial Vaginosis Assay SD9804X

Analytes	- <i>G. vaginalis</i> - <i>Mobiluncus</i> spp. - <i>A. vaginae</i>	- <i>B. fragilis</i> - <i>Megasphaera</i> type 1	- <i>Lactobacillus</i> spp. - BV-associated bacteria 2	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Genital swab
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Allplex™ Bacterial Vaginosis plus Assay SD10159X

Analytes	- <i>G. vaginalis</i> (Q) - <i>Mobiluncus</i> spp. - <i>A. vaginae</i> (Q)	- <i>B. fragilis</i> - <i>Megasphaera</i> type 1	- <i>Lactobacillus</i> spp.(Q) - BV-associated bacteria 2	Specimen	- Genital swab
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Allplex™ CT/NG/MG/TV Assay SD9400X / SD9400Y

Analytes	- <i>C. trachomatis</i> - <i>T. vaginalis</i>	- <i>N. gonorrhoeae</i>	- <i>M. genitalium</i>	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Genital swab - Urine
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Allplex™ MG & AziR Assay SD10169X / SD10170Y

Analytes	- <i>M. genitalium</i>	- A2058G - A2058T - A2058C	- A2059G - A2059T - A2059C	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Genital swab - Urine
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Allplex™ MG & MoxiR Assay SD10234X / SD10233Y / SD10232Z

Analytes	- <i>M. genitalium</i>	- A247C - G248T - G248A	- G259A - G259T - G259C	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Genital swab - Urine
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Allplex™ Vaginitis Screening Assay SD9750X / SD9750Y

Analytes	- <i>G. vaginalis</i> (Q) - <i>A. vaginae</i> (Q)	- <i>Lacto</i> spp.(Q) - <i>Mobiluncus</i> spp. - <i>T. vaginalis</i>	- <i>C. albicans</i> - <i>Candida</i> others	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Genital swab
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Anyplex™ II STI-7 Detection SD7700X / SD7700Y

Analytes	- <i>C. trachomatis</i> - <i>N. gonorrhoeae</i> - <i>M. genitalium</i>	- <i>T. vaginalis</i> - <i>U. parvum</i>	- <i>U. urealyticum</i> - <i>M. hominis</i>	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Swab (urethral, vaginal and cervical) - Urine
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Anyplex™ II STI-5 Detection SD7500X / SD7500Y

Analytes	- <i>M. genitalium</i> - <i>U. urealyticum</i>	- <i>T. vaginalis</i> - <i>U. parvum</i>	- <i>M. hominis</i>	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Swab (urethral, vaginal and cervical) - Urine
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Anyplex™ CT/NG Real-time Detection SD7200Y

Analytes	- <i>C. trachomatis</i>	- <i>N. gonorrhoeae</i>	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Swab (urethral, vaginal and cervical) - Urine
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Human Papillomavirus

Anyplex™ II HPV28 Detection HP7500X

Analytes	- 19 High-risk genotypes : 16, 18, 26, 31, 33, 35, 39, 45, 51, 52, 53, 56, 58, 59, 66, 68, 69, 73, 82	- 9 Low-risk genotypes : 6, 11, 40, 42, 43, 44, 54, 61, 70	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Cervical swab
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Anyplex™ II HPV HR Detection HP7E00X

Analytes	- 14 High-risk genotypes : 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68	Specimens	- Liquid based cytology (e.g., ThinPrep® and Surepath™) - Cervical swab
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Gastrointestinal Infection

Allplex™ GI-Virus Assay GI9701X / GI9701Y / GI10184Z

Analytes	- Norovirus GI - Norovirus GII	- Rotavirus - Sapovirus	- Adenovirus - Astrovirus	Specimens	- Stool - Fecal swab
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Allplex™ GI-Bacteria(I) Assay GI9801X / GI9801Y / GI10201Z

Analytes	- <i>Campylobacter</i> spp. - <i>Vibrio</i> spp. - <i>Clostridium difficile</i> toxin B	- <i>Shigella</i> spp. / EIEC - <i>Salmonella</i> spp.	- <i>Y. enterocolitica</i> - <i>Aeromonas</i> spp.	Specimens	- Stool - Fecal swab
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Allplex™ GI-Bacteria(II) Assay GI9702X / GI9702Y / GI10183Z

Analytes	- <i>E. coli</i> O157 - Hypervirulent <i>C. difficile</i>	- STEC (<i>stx1/2</i>) - EAEC (<i>aggR</i>)	- ETEC (<i>lt/st</i>) - EPEC (<i>eaeA</i>)	Specimens	- Stool - Fecal swab
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Allplex™ GI-Parasite Assay GI9703X / GI9703Y / GI10202Z

Analytes	- <i>G. lamblia</i> - <i>B. hominis</i>	- <i>E. histolytica</i> - <i>D. fragilis</i>	- <i>Cryptosporidium</i> spp. - <i>C. cayetanensis</i>	Specimens	- Stool - Fecal swab
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Allplex™ GI-EB Screening Assay GI10198X / GI10197Y / GI10196Z

Analytes	- <i>Y. enterocolitica</i>	- <i>Campylobacter</i> spp.	- <i>E. coli</i> O157	Specimen	- Stool
	- <i>Stx1/2</i>	- <i>Shigella</i> spp. / EIEC	- <i>C. difficile</i> toxin A/B		
	- <i>Salmonella</i> spp.				

Allplex™ GI-Helminth(I) Assay GI10191X / GI10190Y / GI10189Z

Analytes	- <i>S. stercoralis</i>	- <i>T. trichiura</i>	- <i>Hymenolepis</i> spp. (<i>nana</i> , <i>diminuta</i>)	Specimens	- Stool - Fecal swab
	- <i>N. americanus</i>	- <i>E. vermicularis</i>	- <i>Taenia</i> spp. (<i>solium</i> , <i>saginata</i>)		
	- <i>A. duodenale</i>	- <i>Enterocytozoon</i> spp. /			
	- <i>A. lumbricoides</i>	- <i>Encephalitozoon</i> spp.			

Allplex™ H. pylori & ClariR Assay HC10200X / HC10199Y

Analytes	H. pylori	ClariR	- A2142G	- A2143G	- A2142C	Specimens	- Stool - Gastric biopsy

Hospital Acquired Infection

Allplex™ Entero-DR Assay CR9700X / CR9700Y

Analytes	CPE	- KPC	- NDM	- OXA-48	VRE	- vanA	ESBL	- CTX-M	Specimens	- Rectal swab - Bacterial colony

Meningitis

Allplex™ Meningitis-V1 Assay MG9700X / MG9700Y / MG10209Z

Analytes	- Epstein-Barr virus	- HSV1	Specimen	
	- Human herpes virus 6	- HSV2		- CSF
	- Human herpes virus 7	- Varicella-zoster virus		
		- Cytomegalovirus		

Allplex™ Meningitis-V2 Assay MG9500X / MG9500Y / MG10210Z

Analytes	- Parvovirus B19	- Adenovirus	Specimen	
	- Mumps virus	- Parechovirus		- CSF
	- Enterovirus			

Allplex™ Meningitis-B Assay MG9600X / MG9600Y / MG10211Z

Analytes	- <i>N. meningitidis</i>	- <i>L. monocytogenes</i>	Specimen	
	- Group B <i>Streptococcus</i>	- <i>H. influenzae</i>		- CSF
	- <i>E. coli</i> K1	- <i>S. pneumoniae</i>		

Urinary Tract Infection

Allplex™ UTI Panel 1 * Upcoming

Analytes	- <i>E. cloacae</i> complex	- <i>P. mirabilis</i>	Specimen	
	- <i>E. coli</i>	- <i>P. vulgaris</i>		- Urine
	- <i>K. aerogenes</i>	- <i>P. aeruginosa</i>		
	- <i>K. oxytoca</i>	- <i>S. marcescens</i>		
	- <i>K. pneumoniae</i>			

Allplex™ UTI Panel 2 * Upcoming

Analytes	- <i>A. schaalii</i>	- <i>S. agalactiae</i>	Specimen	
	- <i>E. faecium</i>	- <i>S. epidermidis</i>		- Urine
	- <i>E. faecalis</i>	- <i>S. saprophyticus</i>		
	- <i>C. albicans</i>	- <i>S. aureus</i>		
	- <i>C. others</i>			

Allplex™ UTI Panel 3 * Upcoming

Analytes	- <i>A. baumannii</i>	- <i>M. morgani</i>	Specimen	
	- <i>A. urinae</i>	- <i>P. agglomerans</i>		- Urine
	- <i>C. freundii</i>	- <i>P. stuartii</i>		
	- <i>C. koseri</i>	- <i>S. anginosus</i>		
	- <i>C. urealyticum</i>			

Group B Streptococcus Typing

Allplex™ GBS Typing * Upcoming

Analytes	- GBS screening	- GBS serotype IV	Specimen	
	- GBS serotype Ia	- GBS serotype VI		- Bacterial colony
	- GBS serotype Ib	- GBS serotype V		
	- GBS serotype II	- Others		
	- GBS serotype III	(GBS serotype VII, VIII, IX)		

Oncology

Anyplex™ BRAF V600E Real-time Detection BR7100Y

Analyte	- V600E	Specimens	- Thyroid tissues
			- Thyroid fine needle aspiration biopsy (FNAB)
			- Liquid based cytology (e.g., ThinPrep®)
			- Formalin fixed paraffin embedded (FFPE) thyroid tissues
			- Hematoxylin and eosin (H&E) thyroid slide

Tropical Fever Infection

Allplex™ Tropical Fever Virus Assay * Upcoming

Analytes	- Dengue virus	Specimens	- Serum/Plasma
	- Chikungunya virus		- Urine (Only for Zika)
	- Zika virus		
	- West Nile virus		

Dermatophyte Infection

Allplex™ Dermatophyte Assay * Upcoming

Analytes	- <i>T. mentagrophytes</i> complex	- <i>Microsporum</i> spp.	Specimens	
	- <i>T. rubrum</i> complex	- <i>E. floccosum</i>		- Skin
	- <i>T. tonsurans</i>	- <i>C. albicans</i>		- Nail
				- Hair

* In development

Seegene's product pipeline

All MDx assays in one real-time PCR platform

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