

Viral Pathogens Inactivated by my-shield® Hand Sanitizer & Active Ingredients: A Proprietary Blend of Highly Effective Quaternary Amines*

[yellow highlighted represents Virus Group IV families containing
SARS, MERS (**Coronaviridae**) & Zika Virus (**Flaviviridae**)]

Viruses (Strain Designations)	Virus Family	Group #	Shape ICH = Icosahedral	Size of Virus (nm)	Reference
Enveloped Viruses, Virus Families & Groups					
Herpes Simplex Type I	Herpesviridae	I	ICH		1, 2, 3
Herpes Simplex Type II	Herpesviridae	I			5
Equine Herpes Virus Type 1	Herpesviridae	I			9
Infectious Bovine Rhinotracheitis Virus (IBR)	Herpesviridae	I			9
Feline Pneumonitis (Rhinotracheitis) Virus	Herpesviridae	I		120-200	5
Pseudorabies Virus	Herpesviridae	I			9
Human Coronavirus	Coronaviridae	IV	Helical	120-160	9, 10
Canine Coronavirus	Coronaviridae	IV			9
Feline Infectious Peritonitis Virus	Coronaviridae (a mutated Feline Enteric Coronavirus)	IV			17
Hepatitis C Virus (HCV)	Flaviviridae	IV	Sphere		9
Influenza A2 Virus (Aichi)	Orthomyxoviridae	V	Helical	80-120	2, 3, 5

Influenza A2 Virus (Asian)	Orthomyxoviridae	V		80-120	2, 3
Influenza A Virus (H1N1)	Orthomyxoviridae	V			7, 11
Influenza Virus A (H5N1)	Orthomyxoviridae	V			9
Influenza A/PR Virus	Orthomyxoviridae	V			
Influenza B Virus	Orthomyxoviridae	V			2, 3
Newcastle Disease Virus (NDV)	Orthomyxoviridae	V			9
Parinfluenza (Sendai)	Paramyxoviridae	V	Helical		5
Mumps Virus	Paramyxoviridae	V			2, 3
Canine Distemper Virus	Paramyxoviridae	V			9
Hantavirus	Bunyaviridae	V	Helical	90-120	9
HIV-I (AIDS) Virus	Retroviridae	VI	ICH		5, 8, 9
Rous Sarcoma	Retroviridae	VI		90-120	2, 3
Hepatitis B Virus (HBV)	Hepadnaviridae	VII	ICH		9
Vaccinia	Poxviridae	I	Complex	240-300	2, 3, 9
Non-Enveloped (Naked) Viruses, Virus Families & Groups					
Adenovirus Type II & IV	Adenoviridae	I	ICH	75-80	2, 3, 5, 16
Bovine Adenovirus Type I & IV	Adenoviridae	I			2, 3, 5

Simian Virus 40	Polyomaviridae	I	ICH	~45	2, 32, 3
Porcine Rotavirus	Reoviridae	III	ICH	60-80	9
Reovirus Type I	Reoviridae	III			2, 3
Murine Norovirus 1**	Caliciviridae	IV	ICH	35-39	15
Feline Calicivirus	Caliciviridae				14
Rhinovirus	Picornaviridae	IV	ICH	22-30	11
Enterovirus 71*					11
Poliovirus Type 3	Picornaviridae	IV		22-30	16
MS2 (Bacteriophage)	Bacteriophage	NA	ICH w/tail		4
PRD1 (Bacteriophage)	Bacteriophage	NA			4

*From published information on efficacy of active ingredients in various forms of skin and surface sanitizers/disinfectants.

**a mg\]Y`X€ Hand Sanitizer with Aloe Vera

Classifying viruses according to their genome means that those in a given category will all behave in much the same way, which offers some indication of how to proceed with further research. Baltimore Group descriptions below:

I: double-strand DNA viruses

II: single-strand DNA viruses (+ strand or "sense") DNA

III: double-strand RNA

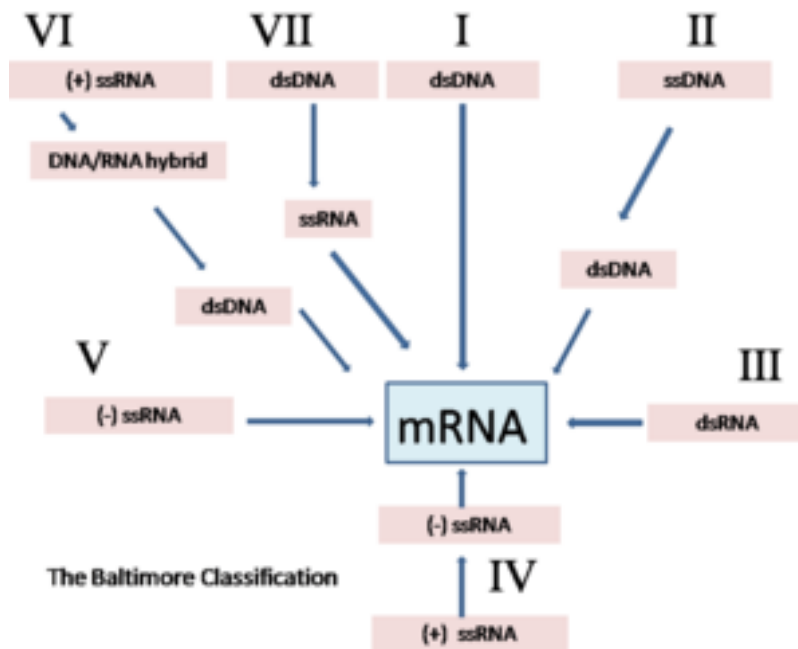
IV: (+) single-strand RNA viruses (+ strand or sense) RNA

V: (-) single-strand RNA viruses (- strand or antisense) RNA

VI: single-strand RNA-RT viruses (+ strand or sense) RNA with DNA

intermediate in life-cycle
 VII: double-strand DNA-RT viruses

The first reference (I-Fu Tsao et al. 1989) identifies the essence and anatomy of how inactivation of enveloped viruses such as MERS-CoV & Zika virus (ZIKV) takes place. This helps explain why my-shield® has positive characteristics that can be used to help stop virus transmission.



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