

# Coronavirus Products

## A brief overview of Coronavirus

Coronaviruses (CoV), named after their crown-like shape, were first identified in the 1960s and it belongs to the *Coronaviridae* family in the *Nidovirales* order. Coronaviruses are 65-125 nm in diameters in size and contain a single-stranded RNA (ssRNA) as a nucleic material, size ranging from 26 to 32 kbs in length. The subgroups of the coronaviruses family are alpha ( $\alpha$ ) and beta ( $\beta$ ) coronavirus that can infect humans, and gamma ( $\gamma$ ) and delta ( $\delta$ ) coronaviruses, which are found only in animals. Severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) belong to the B and C subclasses of  $\beta$ -coronavirus respectively and both can lead to fatal respiratory diseases. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), Severe acute respiratory syndrome coronavirus (SARS-CoV), and Middle East respiratory syndrome coronavirus (MERS-CoV) are zoonotic viruses that are highly pathogenic.

## Coronavirus related Proteins and Antibodies

### • Recombinant Proteins

	Product name	Protein domain	Species	Expression system	Tagging	Purity	Endotoxin Test	Bioactivity	Cat No.
<b>NEW</b>	SARS-CoV Spike	14-1195aa	SARS-CoV	Baculovirus	His	>85%	P	P	ATGP3967
<b>NEW</b>	SARS-CoV Spike RBD	306-515aa	SARS-CoV	HEK293	His	>95%	P	P	ATGP3966
		306-515aa	SARS-CoV	Baculovirus	His	>95%	P	P	ATGP3960
<b>NEW</b>	SARS-CoV-2 (2019-nCoV) Spike S1	16-685aa	SARS-CoV-2	HEK293	His	>85%	P	P	ATGP3961
<b>NEW</b>	SARS-CoV-2 (2019-nCoV) Spike RBD	319-529aa	SARS-CoV-2	HEK293	His	>95%	P	P	ATGP3969
		319-541aa	SARS-CoV-2	HEK293	His	>95%	P	P	ATGP3968
		319-541aa	SARS-CoV-2	Baculovirus	His	>95%	P	P	ATGP3962
<b>NEW</b>	MERS-CoV Spike*	18-1296aa	MERS-CoV	Baculovirus	His	>85%	P	NA	ATGP3979
<b>NEW</b>	MERS-CoV Spike S1*	18-751aa	MERS-CoV	Baculovirus	His	>85%	P	NA	ATGP3980
<b>NEW</b>	MERS-CoV Spike S2*	752-1296aa	MERS-CoV	Baculovirus	His	>85%	P	NA	ATGP3981
<b>NEW</b>	MERS-CoV Spike RBD*	358-606aa	MERS-CoV	Baculovirus	His	>90%	P	NA	ATGP3982
<b>NEW</b>	ACE-2	18-740aa	H	HEK293	hlgG-His	>90%	P	P	ATGP3963
		18-740aa	M	Baculovirus	His	>95%	P	NA	ATGP3288
		18-740aa	R	Baculovirus	His	>95%	P	NA	ATGP3265
	Neuropilin-1/NRP1	22-856aa	H	Baculovirus	His	>90%	P	NA	ATGP3769
		22-855aa	M	Baculovirus	His	>90%	P	NA	ATGP3360
		22-856aa	R	Baculovirus	His	>90%	P	NA	ATGP3362
<b>BEST</b>	DPP4/CD26	39-766aa	H	Baculovirus	His	>95%	P	P	DPP0901
	Aminopeptidase N/CD13	33-966aa	M	Baculovirus	His	>95%	P	P	ATGP3925
	Cathepsin B	18-339aa	M	Baculovirus	His	>90%	P	NA	ATGP3308
		18-339aa	M	Baculovirus	His	>90%	P	P	ATGP3487
<b>BEST</b>	Cathepsin L	18-333aa	H	<i>E.coli</i>	His	>90%	NA	NA	ATGP2989(D)
		18-333aa	H	<i>E.coli</i>	His	>85%	P	NA	ATGP3536
		18-334aa	M	Baculovirus	His	>90%	P	NA	ATGP3318
	BSG/CD147	22-207aa	H	Baculovirus	hlgG-His	>90%	P	NA	ATGP3737
	Furin	108-715aa	H	<i>E.coli</i>	His	>85%	NA	NA	ATGP3028(D)
	Cyclophilin A/PPIA	1-165aa	H	<i>E.coli</i>	non	>95%	P	P	CYP0702
		1-164aa	M	<i>E.coli</i>	His	>95%	NA	NA	ATGP2981
		25-190aa	<i>E.coli</i>	<i>E.coli</i>	His	>95%	NA	NA	ATGP2983

### • Monoclonal Antibodies

	Product Name	Clone No.	Applications	Isotype	Host	Cat No.
<b>NEW</b>	MERS-CoV Spike*	AT40G7	ELISA, Neutralization	IgG1,k	M	ATGA0594
		AT23D3	ELISA, Neutralization	IgG1, $\lambda$	M	ATGA0596
		AT25E4	ELISA, Neutralization	IgG1,k	M	ATGA0597
		AT6E6	ELISA	IgG1,k	M	ATGA0598
		AT43E4	ELISA, Neutralization	IgG2b,k	M	ATGA0599
		AT14F8	ELISA, Neutralization	IgG1,k	M	ATGA0600
<b>NEW</b>	MERS-CoV Spike S2*	AT14H8	ELISA, WB, Neutralization	IgG2b,k	M	ATGA0593
<b>NEW</b>	MERS-CoV Spike RBD*	AT2F7	ELISA, WB	IgG2b,k	M	ATGA0595
	Cathepsin L	AT18F6	ELISA, WB, FACS, ICC/IF	IgG2a,k	M	ACT0905

\* Goo J, et al. Characterization of novel monoclonal antibodies against MERS-coronavirus spike protein. *Virus Res.* 2020 Mar;278:197863.

H: Human M: Mouse R: Rat P: Pass NA: Not Analyzed D: Denatured form