## **Research Tools for COVID-19**

Given the high homology of the COVID-19 to SARS, you may consider the SARS antibodies and proteins in the absence of specific antibodies.

### Antibodies for SARS research

Product no.	Products	Applications	Homology
ab22055	Anti-SARS E antibody	WB	100%
ab252690	Anti-SARS spike glycoprotein antibody - C-terminal	ELISA	90%
ab181620	Anti-SARS Nsp3 antibody	WB, ELISA	75%-82%
db270846	Anti-SARS M antibody [2H2C4] - Coronavirus	WB	80%
ab31951	Anti-SARS E2 antibody [4A6C9]	WB, ELISA	76%
ab252691	Anti-SARS spike glycoprotein antibody - N-terminal	ELISA	57%

### Host receptor/protease

Target	Products	Product no.	Description
ACE2	Antibody	ab108252	Host receptor recognized by COVID-19 and SARS-CoV.
	ELISA kit - human	ab235649	
	ELISA kit - mouse	db213843	
TMPRSS2	Antibody	ab109131	Incised COVID-19 and
Cathepsin B	Antibody	ab125067	SARS-CoV spike proteins mediate virus entry into host cells.
	Cell detection kit	ab65300	
	Micromolecular compound	ab144048	
	Micromolecular compound	ab141386	
Cathepsin L	Antibody	ab103574	
	Cell detection kit	ab65306	
DPP4	Antibody	ab215711	Host receptor recognized by MERS-CoV.
	ELISA kit - human	ab252365	
	ELISA kit - mouse	ab264630	
	Small Molecule	ab141724	
	Small Molecule	ab235551	
APN	Antibody	ab108310	Host receptor recognized by HCoV-229E.
	ELISA kit - human	ab239427	

#### Secondary antibodies

Conjugates	Products	Product no.
Fluorescent	Goat Anti-Human IgG Fc (FITC)	ab97224
	Goat Anti-Human IgG H&L (FITC)	ab6854
	Goat Anti-Human IgG H&L (DyLight® 488)	ab96907
	Rabbit Anti-Human IgM mu chain (Alexa Fluor® 488)	ab150189
HRP	Mouse monoclonal [HP6025] Anti-Human IgG4 FC (HRP)	ab99823
	Goat Anti-Human IgG FC (HRP)	ab97225
	Rabbit Anti-Human IgG H&L (HRP)	ab6759
	Goat Anti-Human IgM mu chain (HRP)	ab97205
	Goat Anti-Human IgG FC (HRP) preadsorbed	ab98624
	Goat Anti-Human IgG+IgM+IgA H&L (HRP)	ab102420
	Goat Anti-Human IgM mu chain (HRP) preadsorbed	ab98549
Biotin	Rabbit Anti-Human IgG H&L (Biotin) preadsorbed	ab7159
	Mouse monoclonal [UHB] Anti-Human IgM mu chain (Biotin)	ab99745
Unconjugated	Goat Anti-Human IgG FC	ab97221
	Mouse monoclonal (UHB) Anti-Human IgM mu chain	ab99741
	Rabbit monoclonal [H169-1-5] Anti-Human IgG FC	ab125909

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# Cytokines

Target	Functions in virus infection	Recommended ELISA kits
IL-1ß	Inflammation cytokine, marked elevation in SARS patient	ab214025
IFN-γ	Th-1 cytokine, pro-inflammatory cytokine response, marked elevation in SARS patient and MERS patient	ab236895
IP-10	Th-1 chemokine, marked elevation in SARS patient, corticosteroid reduced a treatment	ab173194
MCP-1	Chemokine, marked elevation in SARS patient, corticosteroid reduced after treatment	ab179886
G-CSF	A significant increase of serum G-CSF level with coronavirus infection of the respiratory tract to stimulate the proliferation of granulocytic precursors	ab264627
MIP1a	2019-nCov infection showed a higher plasma level of MIP1A	db214569

TNFa	Inflammation cytokine, no significant elevation in SARS patient	ab181421
IL-4	Th-2 cytokine, no significant elevation in SARS patient	ab46063
	,	ab215089
ILIRA	Anti-inflammatory agent, increased dramatically in the acute severe case	ab211650
IL-7	IL-7 supports to maintain homeostasis and survival of memory CD8+ T cells in	
	lymphoid tissue during coronavirus infection of CNS	ab185984
IL-8	Neutrophil chemokine, marked elevation in SARS patient, corticosteroid	
	reduced after treatment	ab214030
IL-9	Pro-inflammatory cytokine IL-9 was significantly up-regulated after 48-72h	
	infection in virus-induced severe liver injury	ab242237
IL-10	Inflammation cytokine, no significant elevation in SARS patient	ab46059
		ab185986
Basic FGF/FGF2	Upregulation of Basic FGF (FGF2) expression induced by MERS-Cov caused	ab99979
	apoptosis in both kidney and lung cells	ab246531
GMCSF	Significantly elevated in CoV-CNS infection; Significantly reduced after ribavirin	
	(SARS-CoV inhibitory) treatment in mice	ab174448
MIP1b	Secretion of MIP1B after a significant increase of TNF alpha was found in HCoV-	
	229E caused upper respiratory tract infections	db216173
PDGF-BB	A significant increase of PDGF-BB level was showed in patients of viral acute	
	pneumonia	ab184860
VEGF	VEGF is upregulated in Intraocular coronavirus susceptible mice	ab222510
ELISA and Conjugati		
Types	Products	Product no.
ELISA kits		
LLI3/ KII3	Human IgG ELISA Kit	ab195215
LLISA KIIS	Human IgG ELISA Kit Human IgM ELISA Kit	ab195215 qb214568
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Proteins/antibodies	Human IgM ELISA Kit	qb214568
Proteins/antibodies	Human IgM ELISA Kit GOLD Conjugation Kit (10 nm 20 OD)	qb214568 ab201808
Proteins/antibodies	Human IgM ELISA Kit  GOLD Conjugation Kit (10 nm 20 OD)  GOLD Conjugation Kit (20nm, 20 OD)	qb214568 ab201808 ab188215
Proteins/antibodies Gold Conjugation kits	Human IgM ELISA Kit  GOLD Conjugation Kit (10 nm 20 OD)  GOLD Conjugation Kit (20nm, 20 OD)  GOLD Conjugation Kit (40nm, 20 OD)	ab201808 ab188215 ab154873
Proteins/antibodies Gold Conjugation kits  GOLD conjugation	Human IgM ELISA Kit  GOLD Conjugation Kit (10 nm 20 OD)  GOLD Conjugation Kit (20nm, 20 OD)  GOLD Conjugation Kit (40nm, 20 OD)  GOLD Conjugation Kit (60nm 20 OD)	ab214568 ab201808 ab188215 ab154873 ab188216
Proteins/antibodies Gold Conjugation kits	Human IgM ELISA Kit  GOLD Conjugation Kit (10 nm 20 OD)  GOLD Conjugation Kit (20nm, 20 OD)  GOLD Conjugation Kit (40nm, 20 OD)  GOLD Conjugation Kit (60nm 20 OD)	ab214568 ab201808 ab188215 ab154873 ab188216