



www.onsbio.com

## Coronavirus inhibitors to advance your research

**Pricing:** Our pricing is among the best in the business.  
**Extensive knowledge:** Made by multiple PhD medicinal chemists and biologists on staff, all of whom have nearly 40 years of experience in this business.  
**Known quality:** most of our compounds made in-house here in the US; others come from trusted sources validated over the years. Stringent QC all of our products by TLC, NMR, melting point, mass spectrometry, and solubility.  
**Fast order turnaround:** Usually ships same day or next day, even multi-vial orders.  
**Flexible packaging:** We choose our package sizes based on how much would be needed for an experiment, but we can just as easily package at sizes needed by you.  
**Cutting edge:** We follow the latest research and develop cutting-edge biochemical tools for all research areas.  
**Overall:** We are small and nimble, serving our customers like a large company and drawing on years of experience in the research tools market. Our fierce commitment to customer service permeates all aspects of our company: reliability & responsiveness, quality, speed, flexibility.

34194 Aurora Road, Suite#110, Solon, OH 44139  
 USA Ph:440-482-5005 info@onsbio.com

[order@onsbio.com](mailto:order@onsbio.com)

Cat#	Name	Primary activity	COVID-19 rationale	Source	Status	Sample Size	Price for Sample	Regular Size	Price for Regular
MC-2294	Losartan potassium	Angiotensin AT1 receptor antagonist	In clinical trials to treat COVID-19		Approved drug (U.S.); in COVID-19 clinical trials	100 mg	\$52.00	500 mg	\$208.00
MC-3900	Tigecycline	Antibiotic	Like Azithromycin, has off-target effect on mitochondrial ribosomes, components of which interact with the SARS-CoV-2 Nsp8 protein	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	10 mg	\$65.00	50 mg	\$253.50
MC-2469	Metformin	Antidiabetic agent; Autophagy modulator	Indirect modulator of mTORC1 complex; mTORC1 pathway members interact with SARS-CoV-2 N and Orf8 proteins	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	5 g	\$39.00	25 g	\$156.00
MC-1379	Hydroxychloroquine sulfate	Antimalarial; autophagy inhibitor; endosomal acidification fusion inhibitor	In clinical trials (alongside chloroquine) for SARS-CoV-2 infection; multiple potential mechanisms, including inhibiting viral endocytosis and attenuating the "cytokine storm"	Hu et al., Schrezenmeier & Dörner, Guy et al.	Approved drug (U.S.); now approved by US FDA for COVID-19	50 mg	\$39.00	250 mg	\$130.00
MC-2473	Chloroquine phosphate	Antimalarial; autophagy inhibitor; endosomal acidification fusion inhibitor	In clinical trials (alongside hydroxychloroquine) for SARS-CoV-2 infection; multiple potential mechanisms, including inhibiting viral endocytosis; attenuating the "cytokine storm"; binding Sigma 1 receptor (SARS-CoV-2 Nsp6 protein interacts with the Sigma receptor)	Gordon et al. (bioRxiv), Hu et al., Wang et al., Schrezenmeier & Dörner, Guy et al.	Approved drug (U.S.); now approved by US FDA for COVID-19	1 g	\$32.50	5 g	\$97.50
MC-3001	Emetine	Antiparasitic, Antiviral	Inhibits SARS-CoV-2 replication in cells	Choy et al.	Approved drug (U.S.); beginning COVID-19 clinical trials	50 mg	\$65.00	250 mg	\$195.00
MC-4483	Oseltamivir phosphate	Antiviral (influenza); Neuraminidase inhibitor	In silico, binds strongly to key SARS-CoV-2 protease, 3CLpro	Muralidharan et al.	Approved drug (U.S.); in COVID-19 clinical trials, often in combination with Lopinavir and Ritonavir	50 mg	\$39.00	250 mg	\$143.00
MC-3970	N4-Hydroxycytidine (EIDD-1931)	Antiviral (novel)	Has antiviral activity against SARS-CoV-2	Sheahan et al.; GEN	Its prodrug form, EIDD-2801, to begin clinical trials for COVID-19	5 mg	\$91.00	25 mg	\$325.00
MC-1281	Ribavirin	Antiviral agent	Inhibits IMPDH2, which interacts with SARS-CoV-2 Nsp14; may also inhibit viral RNA polymerase	Gordon et al. (bioRxiv), Liu et al., Wang et al.	Approved drug (U.S.) that could be repurposed	100 mg	\$45.50	250 mg	\$110.50
MC-4472	Umifenovir (Arbidol)	Antiviral agent	In clinical use for influenza; blocks viral fusion to cell	Tu et al.	Approved drug (Russia); in COVID-19 clinical trials	10 mg	\$65.00	50 mg	\$234.00
MC-5060	Favipiravir (T-705)	Antiviral agent	In clinical use for influenza; blocks viral fusion to cell	Wang et al.	Approved drug (Japan); in COVID-19 clinical trials	5 mg	\$58.50	25 mg	\$208.00
MC-2628	Ivermectin	Antiviral, antiparasitic	A single treatment inhibits replication of SARS-CoV-2 in cells	Caly et al.	Approved drug (U.S.) that could be repurposed	1 g	\$78.00	5 g	\$260.00
MC-4633	Nitazoxanide	Antiviral, antiparasitic	Inhibits the SARS-CoV-2 at low-micromolar concentration	Liu et al., Wang et al.	Approved drug (U.S.) that could be repurposed	10 mg	\$52.00	50 mg	\$195.00
MC-5074	Cepharanthine	Antiviral; Autophagy modulator; Anti-inflammatory natural product	Inhibits SARS-CoV-2 in cells	Ohashi et al., Rogosnitzky et al.	Approved drug (Japan) that could be repurposed	50 mg	\$45.50	250 mg	\$182.00
MC-1487	RVX-208	Bromodomain (BET) inhibitor	SARS-CoV-2 transmembrane protein E binds to the bromodomain-containing proteins BRD2 and BRD4	Gordon et al. (bioRxiv)	In clinical trials for other indication(s)	5 mg	\$88.40	25 mg	\$353.60
MC-4122	I-BET762	Bromodomain (BET) inhibitor	SARS-CoV-2 transmembrane protein E binds to the bromodomain-containing proteins BRD2 and BRD4		In clinical trials for other indication(s)	5 mg	\$91.00	25 mg	\$383.50
MC-1584	JQ1 (+)	Bromodomain inhibitor	SARS-CoV-2 transmembrane protein E binds to the bromodomain-containing proteins BRD2 and BRD4	Gordon et al. (bioRxiv)	Tool compound	5 mg	\$84.50	25 mg	\$338.00
MC-4030	Bromosporine	Bromodomain inhibitor	SARS-CoV-2 transmembrane protein E binds to the bromodomain-containing proteins BRD2 and BRD4		Tool compound	5 mg	\$104.00	25 mg	\$357.50
MC-1075	U-18666A	Cholesterol transport inhibitor	Inhibits feline Coronavirus infection through cholesterol trafficking	Takano et al.	Tool compound	10 mg	\$91.00	50 mg	\$364.00
MC-2025	Entacapone	COMT inhibitor	COMT interacts with SARS-CoV-2 Nsp7	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	10 mg	\$52.00	50 mg	\$143.00
MC-2429	Daunorubicin	DNA damaging agent; Autophagy modulator	Targets Multidrug resistance-associated protein 1 (MRP1), which interacts with SARS-CoV-2 Orf9c	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	10 mg	\$78.00	50 mg	\$247.00
MC-1458	GBR-12909	Dopamine reuptake inhibitor	Sigma receptor agonist (SARS-CoV-2 Nsp6 protein interacts with the Sigma receptor)		Clinical trials showed no serious adverse events, but lack of efficacy for cocaine addiction; could be repurposed	10 mg	\$78.00	50 mg	\$312.00
MC-1103	FK-506 (Tacrolimus)	FKBP inhibitor	mTORC1 pathway members interact with SARS-CoV-2 N and Orf8 proteins	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	10 mg	\$62.40	50 mg	\$234.00
MC-2059	Ascomycin	FKBP ligand	mTORC1 pathway members interact with SARS-CoV-2 N and Orf8 proteins		Tool compound	5 mg	\$45.50	25 mg	\$156.00



www.onsbio.com

## Coronavirus inhibitors to advance your research

**Pricing:** Our pricing is among the best in the business.

**Extensive knowledge:** Made by multiple PhD medicinal chemists and biologists on staff, all of whom have nearly 40 years of experience in this business.

**Known quality:** most of our compounds made in-house here in the US; others come from trusted sources validated over the years. Stringent QC all of our products by TLC, NMR, melting point, mass spectrometry, and solubility.

**Fast order turnaround:** Usually ships same day or next day, even multi-vial orders.

**Flexible packaging:** We choose our package sizes based on how much would be needed for an experiment, but we can just as easily package at sizes needed by you.

**Cutting edge:** We follow the latest research and develop cutting-edge biochemical tools for all research areas.

**Overall:** We are small and nimble, serving our customers like a large company and drawing on years of experience in the research tools market. Our fierce commitment to customer service permeates all aspects of our company: reliability & responsiveness, quality, speed, flexibility.

34194 Aurora Road, Suite#110, Solon, OH 44139  
USA Ph:440-482-5005 info@onsbio.com

[order@onsbio.com](mailto:order@onsbio.com)

Cat#	Name	Primary activity	COVID-19 rationale	Source	Status	Sample Size	Price for Sample	Regular Size	Price for Regular
MC-2288	Ebselen	Glutathione peroxidase mimic	Inhibits SARS-CoV-2 chymotrypsin-like protease (3CLpro)	Jin et al., Ma et al.	In clinical trials for other indication(s)	10 mg	\$36.40	50 mg	\$78.00
MC-1009	Na Valproate	HDAC inhibitor	HDAC2 interacts with SARS-CoV-2 Nsp5	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	5 g	\$39.00	5X5g	\$195.00
MC-2057	Apicidin	HDAC inhibitor	HDAC2 interacts with SARS-CoV-2 Nsp5	Gordon et al. (bioRxiv)	Tool compound	1 mg	\$71.50	5 mg	\$286.00
MC-3613	Santacruzamate A	HDAC2 inhibitor (ultrapotent)	HDAC2 interacts with SARS-CoV-2 Nsp5		Tool compound	5 mg	\$52.00	25 mg	\$208.00
MC-1115	Thalidomide	Immunosuppressant; E3 UB ligase inhibitor	Limits 'cytokine storm' induced by SARS-CoV-2	Chen et al.	"Cytokine storm" drug (approved, U.S.), in COVID-19 clinical trials	100 mg	\$65.00	500 mg	\$260.00
MC-2138	Fingolimod (FTY-720)	Immunosuppressant; Sphingosine-1-phosphate receptor agonist	Limits 'cytokine storm'	WJ Chen	"Cytokine storm" drug (approved, U.S.), in COVID-19 clinical trials	50 mg	\$58.50	250 mg	\$221.00
MC-2087	Mycophenolic acid	Immunosuppressant	Inhibits IMPDH2, which interacts with SARS-CoV-2 Nsp14; Inhibits SARS-CoV-2 in cells	Gordon et al. (bioRxiv), Gordon et al. (Nature)	Approved drug (U.S.) that could be repurposed	100 mg	\$52.00	500 mg	\$130.00
MC-3893	Baricitinib	Immunosuppressant; JAK1/2 inhibitor	Significantly improved COVID-19 symptoms in preliminary human trial, presumably through suppression of "Cytokine storm"	Cantini et al.	"Cytokine storm" drug (approved, U.S.), in COVID-19 clinical trials	5 mg	\$65.00	25 mg	\$195.00
MC-1436	A77 1726 (Teriflunomide)	Immunosuppressant; DHODH inhibitor	Inhibits Sars-CoV-2 in cells, possibly through UTP depletion	Xiong et al.	Approved drug (U.S.) that could be repurposed	5 mg	\$58.50	25 mg	\$195.00
MC-2369	Leflunomide	Immunosuppressant; DHODH inhibitor	Inhibits Sars-CoV-2 in cells, possibly through UTP depletion	Xiong et al.	Approved drug (U.S.); in COVID-19 clinical trials	50 mg	\$52.00	250 mg	\$208.00
MC-1134	Dexamethasone	Immunosuppressant	Short-term dosing ameliorated inflammatory response in pig model of coronavirus infection	Zhang et al.	Approved drug (U.S.); in COVID-19 clinical trials	1 g	\$71.50	5 g	\$286.00
MC-1119	Cyclosporine (Cyclosporin A)	Immunomodulator; MTP and Calcineurin inhibitor	Blocks replication of SARS-CoV, and other coronaviruses, in cells	de Wilde et al., Guy et al., Laise et al.	Approved drug (U.S.) that could be repurposed with caution	100 mg	\$65.00	500 mg	\$260.00
MC-1111	Verapamil	Ion channel antagonist	Targets Multidrug resistance-associated protein 1 (MRP1), which interacts with SARS-CoV-2 Orf9c	Gordon et al. (bioRxiv), Si et al.	Approved drug (U.S.) that could be repurposed	1 g	\$35.10	5 g	\$110.50
MC-2468	Amiodarone HCl	Ion channel antagonist; Autophagy modulator	Suppresses SARS-CoV infection in cells through inhibition of late endosomes	Yang and Shen, Si et al.	Approved drug (U.S.); in COVID-19 clinical trials	1 g	\$58.50	2X1g	\$117.00
MC-4204	DTG	Ion channel: Sigma receptor agonist (high affinity)	Sigma receptor agonist (SARS-CoV-2 Nsp6 protein interacts with the Sigma receptor)		Tool compound	100 mg	\$39.00	500 mg	\$58.50
MC-4003	Pridopidine	Ion channel: Sigma-1 agonist	Sigma 1 receptor agonist (SARS-CoV-2 Nsp6 protein interacts with the Sigma receptor)		In clinical trials for other indication(s)	5 mg	\$104.00	25 mg	\$422.50
MC-4219	SA4503	Ion channel: Sigma-1 antagonist (Selective and potent)	Sigma 1 receptor agonist (SARS-CoV-2 Nsp6 protein interacts with the Sigma receptor)		Was in clinical trials for other indication(s)	5 mg	\$84.50	25 mg	\$286.00
MC-4200	NE-100	Ion channel: Sigma-1 antagonist (Selective)	Sigma 1 receptor antagonist (SARS-CoV-2 Nsp6 protein interacts with the Sigma receptor)		Tool compound	5 mg	\$91.00	25 mg	\$292.50
MC-4201	S1RA (E-52862)	Ion channel: Sigma-1 antagonist (Selective)	Sigma 1 receptor antagonist (SARS-CoV-2 Nsp6 protein interacts with the Sigma receptor)	Gordon et al. (bioRxiv)	In clinical trials for other indication(s)	5 mg	\$110.50	25 mg	\$390.00
MC-4203	PRE084	Ion channel: Sigma-1 antagonist (Selective)	Sigma 1 receptor agonist (SARS-CoV-2 Nsp6 protein interacts with the Sigma receptor)		Tool compound	5 mg	\$65.00	25 mg	\$227.50
MC-4210	BD1047 dihydrobromide	Ion channel: Sigma-1 antagonist (Selective)	Sigma 1 receptor antagonist (SARS-CoV-2 Nsp6 protein interacts with the Sigma receptor)		Tool compound	5 mg	\$65.00	25 mg	\$253.50
MC-4202	Siramesine	Ion channel: Sigma-2 agonist (Selective); Sigma-1 agonist at higher concentrations	Inhibits SARS-CoV-2 in cells	Gordon et al. (Nature)	In clinical trials for other indication(s)	5 mg	\$91.00	25 mg	\$325.00
MC-1064	Astemizole	Ion channel: Sigma-2 agonist; Herg channel blocker	Inhibits SARS-CoV-2 in cells	Gordon et al. (Nature), Riva et al.	Approved but withdrawn (U.S.), could be carefully repurposed	10 mg	\$39.00	50 mg	\$96.20
MC-2112	Valinomycin	Ionophore; Autophagy modulator	Reduces replication of related coronavirus MERS-CoV via SKP2 inhibition	Gassen et al. (Nat. Commun)	Tool compound	10 mg	\$54.60	50 mg	\$182.00
MC-2474	Niclosamide	Kinase (STAT3) signaling inhibitor; Autophagy modulator	Regulates mTORC1 pathway, whose members interact with SARS-CoV-2 N and Orf8 proteins; reduces replication of related coronavirus MERS-CoV via SKP2 inhibition	Xu et al. ACS Infect. Dis., Gassen et al. (Nat. Commun; bioRxiv), Laise et al.	Approved drug (U.S.) that could be repurposed	1 g	\$36.40	5 g	\$109.20
MC-5064	Ponatinib	Kinase inhibitor (including Pan-Bcr-Abl)	Suppresses cytokine storm in mouse models; Inhibits SARS-CoV-2 in cells	Gordon et al. (bioRxiv), Gordon et al. (Nature)	"Cytokine storm" drug (approved, U.S.), that could be repurposed	5 mg	\$65.00	25 mg	\$221.00



www.onsbio.com

## Coronavirus inhibitors to advance your research

**Pricing:** Our pricing is among the best in the business.

**Extensive knowledge:** Made by multiple PhD medicinal chemists and biologists on staff, all of whom have nearly 40 years of experience in this business.

**Known quality:** most of our compounds made in-house here in the US; others come from trusted sources validated over the years. Stringent QC all of our products by TLC, NMR, melting point, mass spectrometry, and solubility.

**Fast order turnaround:** Usually ships same day or next day, even multi-vial orders.

**Flexible packaging:** We choose our package sizes based on how much would be needed for an experiment, but we can just as easily package at sizes needed by you.

**Cutting edge:** We follow the latest research and develop cutting-edge biochemical tools for all research areas.

**Overall:** We are small and nimble, serving our customers like a large company and drawing on years of experience in the research tools market. Our fierce commitment to customer service permeates all aspects of our company: reliability & responsiveness, quality, speed, flexibility.

34194 Aurora Road, Suite#110, Solon, OH 44139  
 USA Ph:440-482-5005 info@onsbio.com

[order@onsbio.com](mailto:order@onsbio.com)

Cat#	Name	Primary activity	COVID-19 rationale	Source	Status	Sample Size	Price for Sample	Regular Size	Price for Regular
MC-1105	PKC-412 (Midostaurin)	Kinase inhibitor (pan specific)	Inhibits MARK2/3, which interact with SARS-CoV-2 Orf9b	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	1 mg	\$65.00	5 mg	\$260.00
MC-1569	Dabrafenib (GSK2118436)	Kinase inhibitor: B-Raf mutant; Autophagy modulator	Inhibits NEK9, which interacts with SARS-CoV-2 Nsp9	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	5 mg	\$44.20	25 mg	\$195.00
MC-4806	Acalabrutinib	Kinase inhibitor: BTK (highly selective)	Limits 'cytokine storm' in humans	AstraZeneca	"Cytokine storm" drug (approved, U.S.), that could be repurposed	5 mg	\$58.50	25 mg	\$188.50
MC-4760	Palbociclib (PD0332991)	Kinase inhibitor: CDK4 / CDK6; Autophagy modulator	Inhibits SARS-CoV in silico, probably through blocking the main protease, Mpro (3CLpro, Nsp5)	Laise et al., Verma et al., Hosseini and Amanlou	Approved drug (U.S.) that could be repurposed	5 mg	\$65.00	25 mg	\$195.00
MC-4511	Ruxolitinib	Kinase inhibitor: JAK	Inhibits MARK2/3, which interact with SARS-CoV-2 Orf9b	Gordon et al. (bioRxiv)	Approved drug (U.S.); in COVID-19 clinical trials	5 mg	\$91.00	25 mg	\$195.00
MC-4759	Trametinib	Kinase inhibitor: MEK	Limits 'cytokine storm' induced by SARS-CoV and MERS-CoV	Li & De Clercq, Laise et al.	"Cytokine storm" drug (approved, U.S.), that could be repurposed	10 mg	\$52.00	50 mg	\$195.00
MC-2161	PD-325901	Kinase inhibitor: MEK	Inhibits SARS-CoV and MERS-CoV in cells	Laise et al., Zumla et al.	Tool compound	5 mg	\$65.00	25 mg	\$240.50
MC-2144	H89	Kinase inhibitor: PKA	PKA interacts with SARS-CoV-2 Nsp13	Gordon et al. (bioRxiv)	Tool compound	5 mg	\$104.00	25 mg	\$416.00
MC-4121	BI 2536	Kinase inhibitor: Plk/BRD4	SARS-CoV-2 transmembrane protein E binds to the bromodomain-containing proteins BRD2 and BRD4		In clinical trials for other indication(s)	5 mg	\$97.50	25 mg	\$357.50
MC-4818	Volasertib	Kinase inhibitor: Polo-like Kinase 1	Also inhibits BRD4; SARS-CoV-2 transmembrane protein E binds to the bromodomain-containing proteins BRD2 and BRD4		In clinical trials for other indication(s)	5 mg	\$104.00	25 mg	\$357.50
MC-4544	7-Cl-O-Nec1	Kinase inhibitor: RIPK1	RIP kinase 1 interacts with SARS-CoV-2 Nsp12		Tool compound	5 mg	\$65.00	25 mg	\$240.50
MC-4611	RIPA-56	Kinase inhibitor: RIPK1 (more potent than 7-Cl-Nec1)	RIP kinase 1 interacts with SARS-CoV-2 Nsp12		Tool compound	10 mg	\$52.00	50 mg	\$175.50
MC-1060	Imatinib	Kinase inhibitor: tyrosine kinases	Inhibits SARS-CoV and MERS-CoV in cells	Dyall et al.	Approved drug (U.S.); in COVID-19 clinical trials	20 mg	\$39.00	100 mg	\$117.00
MC-2126	Dasatinib	Kinase inhibitor: tyrosine kinases	Inhibits SARS-CoV and MERS-CoV in cells	Dyall et al., Laise et al.	Approved drug (U.S.) that could be repurposed	5 mg	\$65.00	25 mg	\$123.50
MC-4801	MK-2206	Kinase inhibitor: AKT; Autophagy modulator	Inhibits SARS-CoV-2 in cells	Gassen et al. (bioRxiv)	In clinical trials for other indication(s)	5 mg	\$71.50	25 mg	\$227.50
MC-1104	Rapamycin	mTOR inhibitor; Autophagy modulator	mTORC1 pathway members interact with SARS-CoV-2 N and Orf8 proteins	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	10 mg	\$62.40	50 mg	\$234.00
MC-3362	INK-128 (Sapanisertib)	mTOR and PI3K inhibitor; Autophagy modulator	mTORC1 pathway members interact with SARS-CoV-2 N and Orf8 proteins	Gordon et al. (bioRxiv)	In clinical trials for other indication(s)	5 mg	\$59.80	25 mg	\$127.40
MC-2136	Everolimus	mTOR inhibitor; Autophagy modulator	Inhibits SARS-CoV in silico, and MERS-CoV in cells	Laise et al., Zumla et al.	Approved drug (U.S.) that could be repurposed	5 mg	\$65.00	25 mg	\$195.00
MC-1311	MLN4924 (Pevonedistat)	Nedd8 activating enzyme inhibitor	Targets Cullin2, which interacts with SARS-CoV-2 Orf10	Gordon et al. (bioRxiv)	In clinical trials for other indication(s)	1 mg	\$117.00	5 mg	\$429.00
MC-2631	Triptolide	NFkB transcriptional activation inhibitor	Also directly inhibits dCTP pyrophosphatase 1 (DCTPP1), which interacts with SARS-CoV-2 Orf9b		Tool compound	1 mg	\$45.50	5 mg	\$123.50
MC-4011	Selinexor	Nuclear export receptor CRM1/XPO1 inhibitor	Blocks receptor XPO1, which interacts with SARS-CoV-2 replication machinery	Gordon et al. (bioRxiv), Laise et al.	Approved drug (U.S.); in COVID-19 clinical trials	5 mg	\$78.00	25 mg	\$253.50
MC-2140	Gemcitabine HCl	Nucleoside analog	Inhibits SARS-CoV and MERS-CoV in cells	Pruijssers and Denison	Approved drug (U.S.) that could be repurposed	10 mg	\$39.00	50 mg	\$156.00
MC-2253	Captopril	Protease inhibitor: ACE	Targets viral cell entry via inhibition of ACE2	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	1 g	\$39.00	5 g	\$104.00
MC-1349	Ac-Leu-Leu-Methional (Calpain inhibitor II, ALLM)	Protease inhibitor: Calpain	Inhibits key SARS-CoV-2 protease, Mpro (3CLpro) in vitro, and SARS-CoV-2 in cells	Ma et al.	Tool compound	5 mg	\$78.00	25 mg	\$227.50
MC-3005	MDL-28170	Protease inhibitor: Calpain	Inhibits SARS-CoV in cells	Barnard et al.	Tool compound	5 mg	\$62.40	25 mg	\$260.00
MC-1347	E-64d	Protease inhibitor: Cysteine proteases; Autophagy modulator	Blocks entry of SARS-CoV-2 into cells that cannot express TMPPRS2	Hoffmann et al. (BioRxiv)	Tool compound	1 mg	\$58.50	5 mg	\$234.00
MC-5087	Boceprevir	Protease inhibitor: HCV NS3 protease	Inhibits key SARS-CoV-2 protease, Mpro (3CLpro) in vitro, and SARS-CoV-2 in cells	Ma et al.	Approved drug (U.S.) that could be repurposed	5 mg	\$91.00	25 mg	\$325.00
MC-3050	Nelfinavir mesylate	Protease inhibitor: HIV-1 protease; Autophagy modulator	Inhibits SARS-CoV-2 in cells	Xu et al. (ChemRxiv); Ohashi et al.	Approved drug (U.S.) that could be repurposed	10 mg	\$65.00	50 mg	\$227.50
MC-4484	Ritonavir	Protease inhibitor: HIV-1 protease	Inhibits SARS-CoV in silico, binds strongly to key SARS-CoV-2 protease, 3CLpro	Nutho et al., Muralidharan et al., Guy et al.	Approved drug (U.S.); in COVID-19 clinical trials, often in combination with Lopinavir and Oseltamivir	10 mg	\$52.00	50 mg	\$195.00



www.onsbio.com

## Coronavirus inhibitors to advance your research

**Pricing:** Our pricing is among the best in the business.

**Extensive knowledge:** Made by multiple PhD medicinal chemists and biologists on staff, all of whom have nearly 40 years of experience in this business.

**Known quality:** most of our compounds made in-house here in the US; others come from trusted sources validated over the years. Stringent QC all of our products by TLC, NMR, melting point, mass spectrometry, and solubility.

**Fast order turnaround:** Usually ships same day or next day, even multi-vial orders.

**Flexible packaging:** We choose our package sizes based on how much would be needed for an experiment, but we can just as easily package at sizes needed by you.

**Cutting edge:** We follow the latest research and develop cutting-edge biochemical tools for all research areas.

**Overall:** We are small and nimble, serving our customers like a large company and drawing on years of experience in the research tools market. Our fierce commitment to customer service permeates all aspects of our company: reliability & responsiveness, quality, speed, flexibility.

34194 Aurora Road, Suite#110, Solon, OH 44139  
USA Ph:440-482-5005 info@onsbio.com

order@onsbio.com

Cat#	Name	Primary activity	COVID-19 rationale	Source	Status	Sample Size	Price for Sample	Regular Size	Price for Regular
MC-1089	Nafamostat mesylate	Protease inhibitor: Serine proteases	Targets viral cell entry via inhibition of ACE2/TMPRSS2	Gordon et al. (bioRxiv), Wang et al., Guy et al.	Approved drug (Japan) that could be repurposed	10 mg	\$65.00	50 mg	\$260.00
MC-2196	Camostat mesilate	Protease inhibitor: Serine proteases	Targets viral cell entry via inhibition of ACE2/TMPRSS2	Hoffmann et al. (Cell), Gordon et al. (bioRxiv), Liu et al., Guy et al.	Approved drug (Japan); in COVID-19 clinical trials	10 mg	\$52.00	50 mg	\$162.50
MC-2216	Gabexate mesylate	Protease inhibitor: Serine proteases	Compound structurally similar to Camostat, which targets viral cell entry via inhibition of ACE2/TMPRSS2		Approved drug (Japan) that could be repurposed	10 mg	\$52.00	50 mg	\$162.50
MC-1477	Carfilzomib	Proteasome inhibitor	Inhibits SARS-CoV in silico, probably through blocking the main protease, Mpro (3CLpro, Nsp5)	Wang, J., Laise et al.	Approved drug (U.S.) that could be repurposed	5 mg	\$65.00	25 mg	\$260.00
MC-2822	Omeprazole	'Proton pump' inhibitor	Increases the in vitro anti-SARS-CoV-2 activity of remdesivir, through two possible mechanisms: lysosomotropic; off-target cysteine protease inhibition	Bojkova et al.	Approved drug (U.S.); in COVID-19 clinical trials	50 mg	\$49.40	500 mg	\$127.40
MC-2373	Auranofin	Thioredoxin reductase inhibitor, leading to unfolded protein response (UPR)	Gold-containing drug that smother's infection of, and cytokine induction by, SARS-CoV-2 in cells	Rothan et al.	Approved drug (U.S.) that could be repurposed	50 mg	\$65.00	2X50mg	\$130.00
MC-2060	Bafilomycin A1	Vacuolar H+ ATPase inhibitor; Autophagy modulator	V1-ATPase subunits interact with SARS-CoV-2 Nsp6 and M; Inhibits SARS-CoV-2 in cells	Gordon et al. (bioRxiv), Gordon et al. (Nature)	Tool compound	100 ug	\$52.00	1 mg	\$208.00
MC-1114	Prazosin	α1 adrenergic antagonist	Limits 'cytokine storm' induced during ARDS (acute respiratory distress syndrome)	Konig et al.	"Cytokine storm" drug (approved, U.S.), that could be repurposed	50 mg	\$50.70	250 mg	\$202.80
MC-2632	Migalastat	α-galactosidase inhibitor; pharmacological chaperone	Inhibits galactosidase alpha (GLA), which interacts with SARS-CoV-2 Nsp14	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	1 mg	\$52.00	5 mg	\$208.00
MC-2413	Miglustat HCl (N-Butyldeoxynojirimycin HCl)	α-galactosidase, glycosyltransferase inhibitor	Inhibits galactosidase alpha (GLA), which interacts with SARS-CoV-2 Nsp14; analog of IHVR-19029, and antiviral in clinical trials	Gordon et al. (bioRxiv)	Approved drug (U.S.) that could be repurposed	5 mg	\$117.00	25 mg	\$468.00

Compounds above were primarily compiled from references below.

In particular, Gordon et al. used 26 of the 29 SARS-CoV-2 proteins as bait molecules to screen for interaction with human proteins. Among the hits, 67 human proteins/pathways are targeted by FDA-approved drugs, drugs in clinical trials, preclinical, or tool compounds (bioRxiv paper). They then tested a subset of those drugs and compounds in cells infected with SARS-CoV-2 (Nature paper).

Reference	Hyperlink
AstraZeneca, Apr 14 2020	<a href="https://www.astrazeneca.com/media-centre/press-releases/2020/astazeneca-initiates-calavi-clinical-trial-with-calquence-against-covid-19.html">https://www.astrazeneca.com/media-centre/press-releases/2020/astazeneca-initiates-calavi-clinical-trial-with-calquence-against-covid-19.html</a>
Barnard et al. Antivir. Chem. Chemother., 15:15-22 2004	<a href="https://doi.org/10.1177/095632020401500102">https://doi.org/10.1177/095632020401500102</a>
Bojkova et al. bioRxiv, Apr 5 2020	<a href="https://doi.org/10.1101/2020.04.03.024257">https://doi.org/10.1101/2020.04.03.024257</a>
Caly et al. Antivir. Res., 178:104787 Jun 2020	<a href="https://doi.org/10.1016/j.antiviral.2020.104787">https://doi.org/10.1016/j.antiviral.2020.104787</a>
Cantini et al. J. Infect., Apr 23 2020	<a href="https://dx.doi.org/10.1016%2Fj.jinf.2020.04.017">https://dx.doi.org/10.1016%2Fj.jinf.2020.04.017</a>
Chen et al. Thalidomide Combined with Low-dose Glucocorticoid in the Treatment of COVID-19 Pneumonia, Preprints 2020: 2020020395, Feb 26 2020	<a href="https://www.preprints.org/manuscript/202002.0395/v1">https://www.preprints.org/manuscript/202002.0395/v1</a>
Choy et al. Antivir. Res., 178:104786, June 2020	<a href="https://doi.org/10.1016/j.antiviral.2020.104786">https://doi.org/10.1016/j.antiviral.2020.104786</a>
de Wilde et al. J Gen Virol., 92:2542-2548 2011	<a href="https://doi.org/10.1099/vir.0.034983-0">https://doi.org/10.1099/vir.0.034983-0</a>
Dey et al. OSF Preprints, Apr 21 2020	<a href="https://doi.org/10.31219/osf.io/urxwh">https://doi.org/10.31219/osf.io/urxwh</a>
Dyall et al. Antimicrob. Agents Chemother., 58:4885-4893 2014	<a href="https://doi.org/10.1128/aac.03036-14">https://doi.org/10.1128/aac.03036-14</a>
Gassen et al. Nat. Commun, 10:5770 2019	<a href="https://doi.org/10.1038/s41467-019-13659-4">https://doi.org/10.1038/s41467-019-13659-4</a>
Gassen et al. bioRxiv, Apr 15 2020	<a href="https://doi.org/10.1101/2020.04.15.997254">https://doi.org/10.1101/2020.04.15.997254</a>
GEN April 8 2020	<a href="https://www.genengnews.com/news/clinical-trial-evaluating-oral-drug-against-coronavirus-expected-to-start-later-this-spring/">https://www.genengnews.com/news/clinical-trial-evaluating-oral-drug-against-coronavirus-expected-to-start-later-this-spring/</a>
Ghosh et al. Bioorg Med Chem Lett., 18:5684-5688 2008	<a href="https://doi.org/10.1016/j.bmcl.2008.08.082">https://doi.org/10.1016/j.bmcl.2008.08.082</a>
Gordon et al. bioRxiv, Mar 23 2020	<a href="https://doi.org/10.1101/2020.03.22.002386">https://doi.org/10.1101/2020.03.22.002386</a>
Gordon et al. Nature, Apr 30 2020	<a href="https://doi.org/10.1038/s41586-020-2286-9">https://doi.org/10.1038/s41586-020-2286-9</a>
Guy et al. Science, 368 829-830 May 22 2020	<a href="https://doi.org/10.1126/science.abb9332">https://doi.org/10.1126/science.abb9332</a>
Hoffmann et al. bioRxiv, Jan 31 2020	<a href="https://doi.org/10.1101/2020.01.31.929042">https://doi.org/10.1101/2020.01.31.929042</a>
Hoffmann et al. Cell, 181:1-10, Apr 16 2020	<a href="https://doi.org/10.1016/j.cell.2020.02.052">https://doi.org/10.1016/j.cell.2020.02.052</a>
Hosseini and Amanlou Preprints, Feb 28 2020	<a href="https://doi.org/10.20944/preprints202002.0438.v1">https://doi.org/10.20944/preprints202002.0438.v1</a>
Hu et al. Nat. Nanotechnol., Mar 23 2020	<a href="https://doi.org/10.1038/s41565-020-0674-y">https://doi.org/10.1038/s41565-020-0674-y</a>
Jin et al. Nature, Apr 9 2020	<a href="https://doi.org/10.1038/s41586-020-2223-y">https://doi.org/10.1038/s41586-020-2223-y</a>
Konig et al. MedRxiv, Apr 8 2020	<a href="https://doi.org/10.1101/2020.04.02.20051565">https://doi.org/10.1101/2020.04.02.20051565</a>
Laise et al. bioRxiv, May 17 2020	<a href="https://doi.org/10.1101/2020.05.12.091256">https://doi.org/10.1101/2020.05.12.091256</a>
Li & De Clercq Nat. Rev. Drug Discov. 19:149, Feb 19 2020	<a href="https://doi.org/10.1038/d41573-020-00016-0">https://doi.org/10.1038/d41573-020-00016-0</a>



www.onsbio.com

## Coronavirus inhibitors to advance your research

**Pricing:** Our pricing is among the best in the business.

**Extensive knowledge:** Made by multiple PhD medicinal chemists and biologists on staff, all of whom have nearly 40 years of experience in this business.

**Known quality:** most of our compounds made in-house here in the US; others come from trusted sources validated over the years. Stringent QC all of our products by TLC, NMR, melting point, mass spectrometry, and solubility.

**Fast order turnaround:** Usually ships same day or next day, even multi-vial orders.

**Flexible packaging:** We choose our package sizes based on how much would be needed for an experiment, but we can just as easily package at sizes needed by you.

**Cutting edge:** We follow the latest research and develop cutting-edge biochemical tools for all research areas.

**Overall:** We are small and nimble, serving our customers like a large company and drawing on years of experience in the research tools market. Our fierce commitment to customer service permeates all aspects of our company: reliability & responsiveness, quality, speed, flexibility.

34194 Aurora Road, Suite#110, Solon, OH 44139  
USA Ph:440-482-5005 info@onsbio.com

[order@onsbio.com](mailto:order@onsbio.com)

Reference	Hyperlink
Liu et al. ACS Cent. Sci., 6:315-331, Mar 12 2020	<a href="https://doi.org/10.1021/acscentsci.0c00272">https://doi.org/10.1021/acscentsci.0c00272</a>
Ma et al. bioRxiv, May 8 2020	<a href="https://doi.org/10.1101/2020.04.20.051581">https://doi.org/10.1101/2020.04.20.051581</a>
Muralidharan et al. J. Biomol. Struct. Dyn., Apr 16 2020	<a href="https://doi.org/10.1080/07391102.2020.1752802">https://doi.org/10.1080/07391102.2020.1752802</a>
Nutho et al. Biochemistry, Apr 15 2020	<a href="https://dx.doi.org/10.1021%2Facs.biochem.0c00160">https://dx.doi.org/10.1021%2Facs.biochem.0c00160</a>
Ohashi et al. bioRxiv, Apr 15 2020	<a href="https://doi.org/10.1101/2020.04.14.039925">https://doi.org/10.1101/2020.04.14.039925</a>
Pruijssers and Denison Curr. Opin. Virol., 35:57-62, Apr 2019	<a href="https://dx.doi.org/10.1016%2Fi.coviro.2019.04.002">https://dx.doi.org/10.1016%2Fi.coviro.2019.04.002</a>
Riva et al. bioRxiv, Apr 17 2020	<a href="https://doi.org/10.1101/2020.04.16.044016">https://doi.org/10.1101/2020.04.16.044016</a>
Rogosnitzky et al. Preprints, May 13 2020	<a href="https://doi.org/10.31219/osf.io/5e9gk">https://doi.org/10.31219/osf.io/5e9gk</a>
Rothan et al. bioRxiv, Apr 15 2020	<a href="https://doi.org/10.1101/2020.04.14.041228">https://doi.org/10.1101/2020.04.14.041228</a>
Schrezenmeier & Dörner Nat. Rev. Rheumatol., 16:155-166, March 2020	<a href="https://doi.org/10.1038/s41584-020-0372-x">https://doi.org/10.1038/s41584-020-0372-x</a>
Shanker et al. ChemRxiv, Mar 4 2020	<a href="http://doi.org/10.26434/chemrxiv.11846943.v7">http://doi.org/10.26434/chemrxiv.11846943.v7</a>
Sheahan et al. Cold Spring Harbor bioRxiv, Mar 20 2020	<a href="https://doi.org/10.1101/2020.03.19.997890">https://doi.org/10.1101/2020.03.19.997890</a>
Si et al. bioRxiv, Apr 14 2020	<a href="https://doi.org/10.1101/2020.04.13.039917">https://doi.org/10.1101/2020.04.13.039917</a>
Takano et al. Antiviral Res. 145:96-102, 2017	<a href="https://doi.org/10.1016/j.antiviral.2017.07.022">https://doi.org/10.1016/j.antiviral.2017.07.022</a>
Tu et al. Int. J. Mol. Sci. 21:2657, Apr 10 2020	<a href="https://doi.org/10.3390/ijms21072657">https://doi.org/10.3390/ijms21072657</a>
Verma et al. Preprints, Apr 9 2020	<a href="https://doi.org/10.20944/preprints202004.0149.v1">https://doi.org/10.20944/preprints202004.0149.v1</a>
Wang et al. Cell Res 30:269-271, Feb 4 2020	<a href="https://doi.org/10.1038/s41422-020-0282-0">https://doi.org/10.1038/s41422-020-0282-0</a>
Wang, J. ChemRxiv, Feb 21 2020	<a href="https://doi.org/10.26434/chemrxiv.11875446.v1">https://doi.org/10.26434/chemrxiv.11875446.v1</a>
Wan-Jin Chen, Phase II clinical trial "Efficacy of Fingolimod in the Treatment of New Coronavirus Pneumonia (COVID-19)" April 2020	<a href="https://clinicaltrials.gov/ct2/show/NCT04280588">https://clinicaltrials.gov/ct2/show/NCT04280588</a>
Xiong et al. bioRxiv, Mar 12 2020	<a href="https://doi.org/10.1101/2020.03.11.983056">https://doi.org/10.1101/2020.03.11.983056</a>
Xu et al. ACS Infect. Dis., Mar 3 2020	<a href="https://pubs.acs.org/doi/10.1021/acsinfectdis.0c00052">https://pubs.acs.org/doi/10.1021/acsinfectdis.0c00052</a>
Xu et al. ChemRxiv, Mar 31 2020	<a href="https://doi.org/10.26434/chemrxiv.12039888.v1">https://doi.org/10.26434/chemrxiv.12039888.v1</a>
Yang and Shen Int J Biol Sci., 16:1724-1731, Mar 15 2020	<a href="https://dx.doi.org/10.7150%2Fijbs.45498">https://dx.doi.org/10.7150%2Fijbs.45498</a>
Zhang et al. J Virol., 82:4420-4428 2008	<a href="https://dx.doi.org/10.1128%2FJVI.02190-07">https://dx.doi.org/10.1128%2FJVI.02190-07</a>
Zumla et al. Nat. Rev. Drug Discov. 15:327-347 2016	<a href="https://dx.doi.org/10.1038/nrd.2015.37">https://dx.doi.org/10.1038/nrd.2015.37</a>

For product related inquiries and quotes email [info@onsbio.com](mailto:info@onsbio.com) and [order@onsbio.com](mailto:order@onsbio.com) visit [www.onsbio.com](http://www.onsbio.com)