

Sample type		Risk for SARS-CoV-2	Facility Requirement	Work Practices	Other Registrations required
Animal work with infectious virus		Very High	ABSL-3	ABSL-3	IACUC, rDNA, BSL-3 subcommittee, Infectious agents
<ul style="list-style-type: none"> Cell culture with infectious virus Culturing of tissue from COVID-19 positive patients 		Very High	BSL-3	BSL-3	rDNA, BSL-3 subcommittee, Infectious agents
<ul style="list-style-type: none"> Lung exudates, Endotracheal aspirates (ES) Lung tissue Nasopharyngeal swabs Saliva Sputum Stool Oral swabs Fecal swabs 	If sample is unknown or tested positive	High	BSL-2	BSL-2 enhanced	IRB?
	If sample tested and confirmed negative	Medium	BSL-2	BSL-2	IRB?
<ul style="list-style-type: none"> Sewage Bone tissue Brain tissue Heart tissue Liver Muscle tissue Spleen Urine 	If sample is unknown or tested positive	High-Medium	BSL-2	BSL-2 enhanced	IRB?
	If sample tested and confirmed negative	Medium	BSL-2	BSL-2	IRB?
<ul style="list-style-type: none"> Blood, serum Cerebral spinal fluid (CSF) Placental tissue 	If sample is unknown or tested positive	Medium	BSL-2	BSL-2 enhanced	IRB? rDNA

Adapted for Southern Connecticut State University from: Yale *Environmental Health & Safety*

<ul style="list-style-type: none"> RNA (full-length) 	If sample tested and confirmed negative	Medium-Low	BSL-2	BSL-2	IRB? rDNA
Animal work with recombinant SARS-CoV-2 proteins (e.g. spike protein)		Medium-Low	ABSL-2	ABSL-2	IACUC, rDNA
Cell culture with recombinant SARS-CoV-2 proteins (e.g. spike protein)		Medium-Low	BSL-2	BSL-2*	rDNA
<ul style="list-style-type: none"> cDNA Fixed tissue Inactivate RNA (heat, chemical) 		Low	BSL-1	BSL-1	Biosecurity training

Legend:

Work Practices:

BSL-2 = standard cell culture laboratory, work inside biosafety cabinet

BSL-2 enhanced = additional precaution required, e.g. all waste needs to be collected inside biosafety cabinet

BSL-1 = work can be performed on the bench

*Work practices are dependent on the use/type of viral vector and source of cell line when working with recombinant materials.

Any unfixed human material that is known to be COVID-19 positive or whose COVID-19 status is unknown should be handled using biosafety level 2 enhanced work practices. A risk assessment should be performed to determine proper handling procedures. Please contact EHS and IBC for further information and guidelines.