

Viral Vector Biosafety Reference

Vector	Risk Group	Containment Level		Additional Requirements	Disinfectant/s
		Lab work	Animal Work		
Adenovirus	2	BSL-2	ABSL-2*	Adenoviral vector must be administered to animals under ABSL-2 containment. *Animals must be housed under ABSL-2 containment for at least 7 days unless data is provided to justify a downgrade of containment in less than 7 days.	Freshly prepared 1:10 household bleach solution. Alcohol not effective disinfectant against adenovirus.
Adeno-associated virus (AAV)	1	BSL-1/BSL-2*	ABSL-1 / ABSL-2**	*AAV must be packaged under BSL-2 due to use of HEK293 cells; once packaged, AAV may be handled at BSL-1. **Animals are housed under ABSL-1 containment; if helper virus is present, ABSL-2 containment is required	Freshly prepared 1:10 household bleach solution. Alcohol not effective disinfectant against AAV.
Retroviruses / Murine Leukemia virus (MLV)	2	BSL-2	ABSL-2*	Retrovirus vector must be administered to animals under ABSL-2 containment. *Animals must be housed under ABSL-2 containment for at least 7 days unless data is provided to justify a downgrade of containment in less than 7 days.	Freshly prepared 1:10 household bleach solution. 70% ethanol Quaternary ammonium disinfectants.
Lentivirus	2	BSL-2	ABSL-2*	Lentivirus vector must be administered to animals under ABSL-2 containment. *Animals must be housed under ABSL-2 containment for at least 7 days unless data is provided to justify a downgrade of containment less than 7 days. Containment procedures can be made more stringent if the transgene is an oncogene.	Freshly prepared 1:10 household bleach solution. 70% ethanol
Baculovirus	1	BSL-1/BSL2*	ABSL-1	*Baculoviral vectors modified for mammalian cells must be handled at BSL-2	Freshly prepared 1:10 household bleach solution or 70% ethanol
Vesicular stomatitis virus (VSV)	2	BSL-2	ABSL-2	VSV vectors must be administered to animals and animals must be housed under ABSL-2 containment.	Freshly prepared 1:10 household bleach solution. Alcohol not effective disinfectant against VSV

Source of Reference: New York Medical College