

IBC RECOMMENDATIONS FOR ANIMAL HOUSING CONTAINMENT

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This chart is a guidance document meant to assist principal investigators in determining which Animal Biosafety Level is appropriate for animals administered certain biohazards. The IBC may determine that a different Animal Biosafety Level is necessary after reviewing your IBC application. If you have questions, please contact IBCstaff@umich.edu.

CATEGORY 1

- intraarticular
- intracochlear
- intracranial
- intramuscular
- intraocular
- intrathecal

CATEGORY 2

- electroporation
- gavage
- immersion
- inhalation
- intraarterial
- intracardiac
- intracellular
- intracoelomic
- intradermal
- intrahepatic
- intraluminal
- intestinal
- intramural
- intranasal
- intraosseous
- intraperitoneal
- intrarectal
- intratracheal
- intratympanic
- intravenous
- oral
- percutaneous
- subcutaneous
- topical
- transcardial
- transdermal
- wound inoculation

OTHER

All other routes of administration

	CATEGORY 1	CATEGORY 2	OTHER
Vectorless Systems	ABSL1	ABSL1	ABSL1
Plasmid Vectors	ABSL1	ABSL1	ABSL1
Adenovirus Vectors			
Human	ABSL1	ABSL2 for 72 hours	Determined on a case-by-case basis
Murine	ABSL2	ABSL2	ABSL2
Other	Determined on a case-by-case basis	Determined on a case-by-case basis	Determined on a case-by-case basis
Retrovirus Vectors			
Lentivirus	ABSL1	ABSL2 for 72 hours	Determined on a case-by-case basis
MoLV, MSCV, FIV, SIV	ABSL1	ABSL2 for 72 hours	Determined on a case-by-case basis
AAV Vectors			
No helper virus, no growth-control genes	ABSL1	ABSL1	ABSL1
With growth-control genes	ABSL1	ABSL2 for 72 hours	Determined on a case-by-case basis
With helper virus	ABSL1	ABSL2 for 72 hours	Determined on a case-by-case basis
Baculovirus Vectors			
Insect	ABSL1	ABSL1	ABSL1
Mammalian	ABSL1	ABSL1	ABSL1
Mammalian with growth-control genes	ABSL1	ABSL2 for 72 hours	Determined on a case-by-case basis
HSV Vectors			
Replication incompetent	ABSL2 for 72 hours	ABSL2 for 72 hours	ABSL2 for 72 hours
Replication competent	ABSL2 for 9 days	ABSL2 for 9 days	ABSL2 for 9 days
Rabies Virus Vectors			
Modified defective, avian pseudotyped	ABSL1	ABSL1	ABSL1
Not modified defective, avian pseudotyped	ABSL2	ABSL2	ABSL2
Other Viral Vectors			
Epstein Barr virus	ABSL2	ABSL2	ABSL2
Murid (gamma) herpes virus 68	ABSL2	ABSL2	ABSL2
Pseudorabies virus	ABSL1	ABSL1	ABSL1
Sendai virus	ABSL2	ABSL2	ABSL2
Sindbis virus	ABSL2	ABSL2	ABSL2
Vaccinia virus	ABSL2	ABSL2	ABSL2
Other	Determined on a case-by-case basis	Determined on a case-by-case basis	Determined on a case-by-case basis
rDNA-Modified Cells			
Human cells	ABSL2	ABSL2	ABSL2
Animal cells	ABSL1	ABSL1	ABSL1
rDNA-Modified Bacteria			
Risk Group 1	ABSL1	ABSL1	ABSL1
Risk Group 2	ABSL2	ABSL2	ABSL2
Infectious Agents (bacteria, viruses, fungi, parasites)			
Risk Group 1	ABSL1	ABSL1	ABSL1
Risk Group 2	ABSL2	ABSL2	ABSL2
Risk Group 3	Determined on a case-by-case basis	Determined on a case-by-case basis	Determined on a case-by-case basis
Biological Toxins			
Cholera toxin	ABSL1	ABSL1	ABSL1
Diphtheria toxin	ABSL1	ABSL1	ABSL1
LPS	ABSL1	ABSL1	ABSL1
Pertussis toxin	ABSL1	ABSL1	ABSL1
Other	Determined on a case-by-case basis	Determined on a case-by-case basis	Determined on a case-by-case basis
Human-Derived Substances	ABSL2	ABSL2	ABSL2
Animal-Derived Substances	Determined on a case-by-case basis	Determined on a case-by-case basis	Determined on a case-by-case basis