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| Appendix A: Hazardous Materials information for AUP # | | | |
| **Identity of Hazard:** Adeno-Associated Virus (AAV) with helper virus or containing oncogenes/toxins | | | |
| PI name: | Building/Rooms: | | Vivarium: |
| **Provide a short description of the reagent(s):** Adeno-associated virus (AAV) is commonly used as a viral vector to introduce new genes and expressed proteins into eukaryotic cells. Adeno-associated virus is replication incompetent and requires coinfection with a helper virus to replicate. AAV can infect both dividing and non-dividing cells but does not integrate into the host genome. Since AAV DNA is episomal, in quiescent cells the viral DNA remains but is lost in dividing cells. There is evidence of AAV integrating into the genomes of human and dogs, however the frequency is not fully known. | | | |
| **This material is hazardous for:**  Humans only  Animals only  Humans and animals  For which animal species? | | **The reagent can be spread by:**  Blood  Feces/urine  Saliva/nasal droplets  Does not leave animal  Other | |
| **Describe any human health risk associated with this agent:** Wild-type AAV is non-pathogenic for humans. However, AAV containing hazardous cargo genes such as oncogenes or toxins can pose a human health risk. Exposures leading to the introduction of recombinant AAV into the user’s cells can result in health risks if the AAV can express known oncogenes or toxins. Furthermore, while AAV is typically episomal, in rare cases AAV can stably integrate into chromosome 19 of the human genome. AAV containing helper viruses may replicate to titers high enough to pose human health risk. | | | |
| **The precautions checked below apply to this experiment:**  The researcher or his/her technicians are responsible for the feeding and care of these animals.  The following items must be assumed to be contaminated with hazardous material and must be handled only by the researcher or his/her technicians.   |  |  | | --- | --- | | Cage  Water Bottle  Animal Carcasses | Bedding  Other none |   Cages must be autoclaved before cleaning.  Label cages and remove label after decontamination.  Animal Carcasses must be labeled and disposed of as follows:   |  |  | | --- | --- | | Incineration  Bag and Autoclave | Biohazardous Waste Container  EH&S will pick up (x5528) |   All contaminated waste (soiled bedding or other animal waste) must be properly labeled and disposed of as follows:   |  |  | | --- | --- | | Incineration  Bag and Autoclave | Biohazardous Waste Container  EH&S will pick up (x5528) | | | | |
| **Personal Protective Equipment (PPE) Required:**  The following PPE must be worn/used in the room or when handling animals:   |  |  | | --- | --- | | Lab Coat/Coveralls  Shoe Covers/Booties  Disposable or Utility Gloves  Head Cover  NIOSH Certified Dust Mask | Disinfectant Footbath  Eye/Face Protection  NIOSH Certified Fitted Respirator; Type  Other |   PPE must be removed before leaving the room.  PPE must be discarded or decontaminated at the end of the project.  Hands, arms, and face must be thoroughly washed upon leaving the room.  Full shower, including washing of hair, must be taken upon leaving the room.  Decontaminate room (Inform Lead Animal Technician when cage and/or room can be returned to general use. | | | |
| **Provide any other information needed to safely work in this designated area of research:**  Animals which are administered AAV containing oncogenes/toxins or co-administered with a helper virus must be treated as ABSL-2. Disposable or reusable cages must be used. Standard ABSL-2 vivarium practices should be used. | | | |