



VIRAL VECTOR
PRODUCTION
UNIT



MATERIAL SAFETY DATA SHEET

(Canine Adenovirus CAV2)

SECTION I - PRODUCT IDENTIFICATION

- **PRODUCT:** Canine Adenovirus CAV2 vectors made by Vector Production Unit (UPV).
- **NAME:** Recombinant canine adenovirus 2 vector.
- **SYNONYM OR CROSS REFERENCE:** CAV2 vector, CAV2.
- **RISK GROUP CLASSIFICATION:** Biosafety Level 2. If the vector transgene encodes for a potentially toxic or tumorigenic gene, then this MSDS is not applicable.
- **CHARACTERISTICS:** Adenoviridae family, non-enveloped double-stranded DNA virus linear DNA genome. The recombinant CAV2 vectors are based on canine adenoviral CAV2 backbone, which is deleted in the E1 region. Replication-defective vector, except in permissive cell lines such as DKZeo cells.
- **PROVIDED:** The vector is provided as liquid or frozen particle suspensions.
- **DESCRIPTION:** Recombinant CAV2 vectors are produced at the UPV by homologous recombination and transfection in permissive human DKZeo cells. To remove empty capsids, at UPV CAV2 vectors are purified by Cesium Chloride ultracentrifugation, followed by size-exclusion chromatography.
- **QUALITY CONTROL ASSAYS:** Titer in physical particles is determined by absorbance (260 nm). Titer in infectious particles is determined by measuring cytotoxic effect in infected DKZeo cells. All vector produced must pass sterility tests to confirm absence of mycoplasma, bacteria, funghi and yeast.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

SECTION II - HEALTH HAZARDS

Handle as biohazardous material under Biosafety Level 2 containment.

- **HAZARDOUS INGREDIENTS:** None.
- **CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN:** None.
- **FIRE AND EXPLOSION:** None.
- **PATHOGENICITY:** Not associated with pathology in humans.

SECTION III - SPECIAL PRECAUTIONS

The Vector Production Unit (UPV) recommends that all CAV2 vectors and cultures be handled by qualified biologists using appropriate safety procedures and precautions.

Adenovirus does not integrate into the host cell genome but can produce a strong immune response.

- **STORAGE:** In sealed containers that are appropriately labeled. Long-term storage at -80°C.
- **CONTAINMENT REQUIREMENTS:** Appropriate containment facilities for all activities involving the vector and vector-administered cells, tissues and fluids. This includes BSL-2 practices for vector use (including animal housing).
- **PROTECTIVE CLOTHING:** Laboratory coat, gloves and closed toed shoes. Safety glasses recommended.
- **TRANSPORT INFORMATION:** Not classified as dangerous in the meaning of transport regulations.

SECTION IV - FIRST AID/TREATMENT

- **CONTACT:** Immediately flush eyes and skin with plenty of water for at least 15 minutes. Call a physician.
- **INGESTION:** Wash out mouth with water. Call a physician.
- **ACCIDENTAL INJECTION:** Wash area with soap and water. Call a physician.
- **ADVICE TO PHYSICIAN:** No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION V - METHOD OF DISPOSAL

- **SPILL:** Contain spill and decontaminate the area using a disinfectant such as chlorine bleach (10% f.c.), allow sufficient contact time (30 min) before clean up.
- **WASTE DISPOSAL:**
 - Dispose of viral stock by autoclaving at 121°C for 15 minutes. Dispose of infected liquid cultures by decontamination with chlorine bleach (10% f.c.) for 10 minutes and then dispose of in sink.
 - Dispose of infected animal carcasses or tissues by incineration.
 - Dispose of in accordance with local regulations.

SECTION VI - MISCELLANEOUS INFORMATION

The above information is accurate to the best of our knowledge. All materials and mixtures may present unknown hazards and should be used with caution. The Vector Production Unit (UPV) assumes no liability resulting from the handling or use of the above product.