

## ***G-Deleted Recombinant Rabies Virus Vector***

### **DESCRIPTION**

Rabies virus is part of the *Rhabdoviridae* family. This is an enveloped virus that possesses a single-stranded and negative-sense RNA genome. Construction of rabies viral vector is based on a modified rabies virus in which the viral envelope G glycoprotein is deleted. This modification renders the virus unable to produce infectious particles.

### **PATHOGENICITY**

Rabies virus cause an acute infection in human which results in encephalitis or paralysis that are usually fatal. The early symptoms of an infection resemble those of other viral infections: fever, headache, malaise and upper respiratory and digestive system disorders.

### **MODE OF TRANSMISSION**

Rabies virus is transmitted by inhalation of aerosolized droplets, by contact with mucosa, by contamination of a pre-existing wound and by parenteral injection.

### **LABORATORY CONTAINMENT REQUIREMENTS**

- G-Deleted recombinant rabies virus vector: **containment level 2.**

*Note: Every G-Deleted Recombinant Rabies Virus Vector construction has to be submitted to the Comité universitaire de gestion des risques biologiques through the Biosafety Officer for the risk assessment.*

### **ANIMAL RESEARCH FACILITY CONTAINMENT REQUIREMENTS**

- G-Deleted recombinant rabies virus vector inoculation: **containment level 2.**
- Housing of animals infected with G-Deleted recombinant rabies virus vector: **containment level 2.**

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### **DISINFECTANTS**

- 70% ethanol, 0,5 % sodium hypochlorite (1/10 dilution of bleach), hydrogen peroxide disinfectants (0,5 % minimum), phenol, formalin.

### **PHYSICAL INACTIVATION**

- Autoclave : 121 °C, 30 minutes, 15 psi.
- Rabies virus does not tolerate pH below 3 or above 11.

### **ADDITIONAL INFORMATION**

- Pathogen Safety Data Sheets: Infectious Substances: Rabies virus, Public Health Agency of Canada;
- Canadian Biosafety Standard (CBS), Second Edition, Government of Canada;
- Web site of the Comité universitaire de gestion des risques biologiques: <https://www.ssp.ulaval.ca/matieres-dangereuses/risques-biologiques/>