

## Rabies Vaccine

### Killed Virus

For use in dogs, cats, cattle, and sheep only

### Defensor® 3

**PRODUCT DESCRIPTION:** Defensor 3 is for vaccination of healthy dogs, cats, cattle, and sheep 3 months of age or older as an aid in preventing rabies. The vaccine is prepared from cell-culture-grown, chemically inactivated rabies virus. The seed virus is a highly immunogenic, fixed strain of rabies virus which originated from Louis Pasteur's original isolate in 1882. The inactivated virus is formulated with a highly purified adjuvant and is packaged in liquid form.

**DISEASE DESCRIPTION:** Rabies is a worldwide, high mortality disease affecting mammalian species. Wild animals are common vectors of the disease and the major source of transmission to humans and domestic animals. Despite successful attempts over the years to reduce the incidence of rabies, recent published reports indicate that in the U.S. more than 30,000 people undergo treatment every year for possible exposure.<sup>1</sup> Domestic animals are the major source of exposure for humans. Since 1980, the most commonly reported rabid domestic animals have been cats, cattle, and dogs. In 1990, a total of 4,881 cases of animal rabies were reported to the Center for Disease Control by all 50 states, the District of Columbia, and Puerto Rico.<sup>2</sup> Susceptibility to rabies varies according to pet species. Rabies is not a treatable disease and suspect pets are usually quarantined until a clinical diagnosis is made, at which time they are destroyed.

The route of infection can be oral, respiratory, or parenteral. Following infection, a paralytic syndrome ensues, emerging as either the "furious" or "dumb" form. "Furious rabies" is characterized by unusual aggression; "dumb rabies" by lethargy and a desire to avoid contact. Respiratory failure is the immediate cause of death.

**SAFETY AND EFFICACY:** Because Defensor 3 is produced on an established cell line, it has safety advantages over inactivated brain-origin rabies vaccines. Tissue-origin vaccines contain extraneous protein in addition to rabies antigen that can lead to autoimmune disease.

The established cell line used in Defensor 3 has been extensively tested for freedom from contaminating agents. In addition, use of an established cell line yields a vaccine of consistent potency from serial to serial. Defensor 3 has proven to be uniformly safe in experimental tests, and no significant adverse reactions were reported in extensive clinical trials of the vaccine.

A duration-of-immunity study, conducted in accordance with federal regulation and under U.S. Department of Agriculture direction, demonstrated that a 1-mL dose met federal guidelines for protection of dogs and cats against virulent challenge administered 3 years after vaccination. Cattle and sheep were likewise protected 1 year after receiving a 2-mL dose of Defensor 3.

### DIRECTIONS:

#### ***Dogs and Cats:***

1. *General Directions:* Shake well. Aseptically administer 1 mL subcutaneously. Dogs may be vaccinated intramuscularly or subcutaneously.
2. *Primary Vaccination:* Administer a single 1-mL dose at 3 months of age or older to healthy dogs and cats. A repeat dose should be administered 1 year later.
3. *Revaccination:* Subsequent revaccination every 3 years with a single dose is recommended.

#### ***Cattle and Sheep:***