

**United States Department of Agriculture (USDA) Approved Animal Rabies Vaccines**

**Table 1. Rabies Vaccines Licensed and Marketed in the United States, 2016**

<b>Product Name</b>	<b>Produced by</b>	<b>Marketed by</b>	<b>For use in</b>	<b>Dose</b>	<b>Age at primary vaccination*</b>	<b>Booster vaccination</b>	<b>Route of inoculation</b>
<b>A) MONOVALENT (Inactivated)</b>							
RABVAC 1	Boehringer Ingelheim Vetmedica Inc License No. 124	Boehringer Ingelheim Vetmedica Inc	Dogs Cats	1 ml 1 ml	3 months 3 months	Annually Annually	IM or SC IM or SC
RABVAC 3	Boehringer Ingelheim Vetmedica Inc License No. 124	Boehringer Ingelheim Vetmedica Inc	Dogs Cats Horses	1 ml 1 ml 2 ml	3 months 3 months 3 months	1 year later & triennially 1 year later & triennially Annually	IM or SC IM or SC IM
EQUIRAB with Havlogen	Merck Animal Health License No. 165A	Merck Animal Health	Horses	1 ml	4 months	Annually	IM
DEFENSOR 1	Zoetis License No. 190	Zoetis	Dogs Cats	1 ml 1 ml	3 months 3 months	Annually Annually	IM or SC SC
DEFENSOR 3	Zoetis License No. 190	Zoetis	Dogs Cats Sheep Cattle	1 ml 1 ml 2 ml 2 ml	3 months 3 months 3 months 3 months	1 year later & triennially 1 year later & triennially Annually Annually	IM or SC SC IM IM
NOBIVAC: 1- Rabies	Zoetis License No. 190	Merck Animal Health	Dogs Cats	1 ml 1 ml	3 months 3 months	Annually Annually	IM or SC SC
NOBIVAC: 3- Rabies and 3- Rabies CA	Zoetis License No. 190	Merck Animal Health	Dogs Cats Sheep Cattle	1 ml 1 ml 2 ml 2 ml	3 months 3 months 3 months 3 months	1 year later & triennially 1 year later & triennially Annually Annually	IM or SC SC IM IM
IMRAB 1	Merial, Inc License No. 298	Merial, Inc	Dogs Cats	1 ml 1 ml	3 months 3 months	Annually Annually	SC SC
IMRAB 1 TF	Merial, Inc License No. 298	Merial, Inc	Dogs Cats	1 ml 1 ml	3 months 3 months	Annually Annually	SC SC
IMRAB 3	Merial, Inc License No. 298	Merial, Inc	Dogs Cats Sheep Cattle Horses Ferrets	1 ml 1 ml 2 ml 2 ml 2 ml 1 ml	3 months 3 months 3 months 3 months 3 months 3 months	1 year later & triennially 1 year later & triennially 1 year later & triennially Annually Annually Annually	IM or SC IM or SC IM or SC IM or SC IM or SC SC
IMRAB 3 TF	Merial, Inc License No. 298	Merial, Inc	Dogs Cats Ferrets	1 ml 1 ml 1 ml	3 months 3 months 3 months	1 year later & triennially 1 year later & triennially Annually	IM or SC IM or SC SC
IMRAB Large Animal	Merial, Inc License No. 298	Merial, Inc	Cattle Horses Sheep	2 ml 2 ml 2 ml	3 months 3 months 3 months	Annually Annually 1 year later & triennially	IM or SC IM or SC IM or SC

\*Minimum age (or older) and one month = 28 days

N/A= Not applicable, IM= Intramuscularly, SC= Subcutaneously

Information is provided by the vaccine manufacturers and USDA APHIS's Center for Veterinary Biologics and is subject to change.

Product Name	Produced by	Marketed by	For use in	Dose	Age at primary vaccination*	Booster vaccination	Route of inoculation
<b>B) MONOVALENT (Rabies glycoprotein, live canary pox vector)</b>							
PUREVAX Feline Rabies	Merial, Inc License No. 298	Merial, Inc	Cats	1 ml	3 months	Annually	SC
PUREVAX Feline Rabies 3YR	Merial, Inc License No. 298	Merial, Inc	Cats	1 ml	3 months	1 year later & triennially	SC
<b>C) COMBINATION (Inactivated)</b>							
Equine POTOMAVAC + IMRAB	Merial, Inc License No. 298	Merial, Inc	Horses	1 ml	3 months	Annually	IM
<b>D) COMBINATION (Rabies glycoprotein, live canary pox vector)</b>							
PUREVAX Feline 3/ Rabies	Merial, Incorporated License No. 298	Merial, Inc	Cats	1ml	8 weeks 3 months	Every 3 to 4 weeks until 3 months & annually 3 to 4 weeks later & annually	SC
PUREVAX Feline 4/ Rabies	Merial, Inc License No. 298	Merial, Inc	Cats	1ml	8 weeks 3 months	Every 3 to 4 weeks until 3 months & annually 3 to 4 weeks later & annually	SC
<b>E) ORAL (Rabies glycoprotein, live vaccinia vector) - RESTRICTED TO USE IN STATE AND FEDERAL RABIES CONTROL PROGRAMS</b>							
RABORAL V-RG	Merial, Inc License No. 298	Merial, Inc	Raccoons Coyotes	N/A	N/A	As determined by local authorities	Oral

\*Minimum age (or older) and one month = 28 days

N/A= Not applicable, IM= Intramuscularly, SC= Subcutaneously

Information is provided by the vaccine manufacturers and USDA APHIS's Center for Veterinary Biologics and is subject to change.

### Rabies Vaccine Descriptions

Based upon information provided on the vaccine labels and provided by the manufacturers, Table 2 lists descriptions of the licensed rabies vaccines in the U.S. by vaccine name, cell line, virus strain, adjuvant, inactivation method, and preservative.

**Table 2. Rabies Vaccine Description**

Manufacturer	Name	Cell Line	Virus Strain	Adjuvant	Inactivation	Preservative
Boehringer Ingelheim Vetmedica Inc	Rabvac 1, 3	Not Disclosed	Not Disclosed	Yes, Not Disclosed	β-propiolactone	Gentamicin
Zoetis	Defensor 1, 3	Baby Hamster Kidney	PV-Paris/BHK/purify.paff3,svr 289	Aluminum hydroxide	β-propiolactone	Thimerosal Gentamicin
Merck Animal Health Inc (Marketed by Merck, produced by Zoetis)	Nobivac 1, 3	Baby Hamster Kidney	Pasteur	Yes	Chemically inactivated	Gentamicin
Merck Animal Health Inc	EquiRab with Havlogen	Not Disclosed	Not Disclosed	Havlogen®	Not Disclosed	Thimerosal, Neomycin, Polymyxin B
Merial Inc	Imrab 1, 3 Imrab 1, 3 TF Imrab Large Animal Equine POTOMAVAC + Imrab	Murine	Pasteur (PV-11)	Aluminum hydroxide	Not Disclosed	Gentamicin
	Purvax Feline Rabies Purvax Feline Rabies 3YR Purevax 3/Rabies Purvax 4/Rabies	-----	Recombinant canarypox vector	N/A	N/A	Gentamicin
	Raboral V-RG	-----	Recombinant vaccinia vector	-----	N/A	-----

**Table 3. Rabies Vaccine Manufacturer Contact Information**

Manufacturer	Phone Number	Internet Address
Boehringer Ingelheim Vetmedica Inc	800-638-2226	www.bi-vetmedica.com
Merck Animal Health Inc	800-521-5767	www.merck-animal-health-usa.com
Merial Inc	888-637-4251	www.us.merial.com
Zoetis	800-366-5288	www.zoetis.com

**Adverse Events:** Adverse events should be reported to the vaccine manufacturer and to USDA, Animal and Plant Health Inspection Service, Center for Veterinary Biologics

Telephone: 800-752-6255

E-mail: CVB@usda.gov

Internet address: [http://www.aphis.usda.gov/animalhealth/cvb\\_aer](http://www.aphis.usda.gov/animalhealth/cvb_aer)