



INNOVATION



COMMITMENT



EXPERTISE

## Vaccines from Virbac

*Protecting pets and  
the future growth  
of your practice*

Shaping the future  
of animal health

**Virbac**

# Cat Vaccines



Virbac are proud to supply vaccines to Cats Protection.



*A streamlined range of vaccines with a straightforward protocol to provide excellent protection against the core feline diseases <sup>1,2</sup>*



## Leucogen®

*The world's first subunit vaccine for cats containing recombinant purified p45 FeLV-envelope antigen, identified as the most important antigen for stimulating immunity to FeLV. Provides targeted and effective antigenic challenge.*

- **3 year duration of immunity** after the 1st annual booster providing enhanced protection and the ability to reduce vaccination for the cat.
- **High efficacy against FeLV** – 93% preventable fraction<sup>3</sup> and 73% of cats are protected against persistent viraemia 3 weeks after their 1st vaccine injection<sup>4</sup>. Protects against all 3 subgroups of FeLV.
- **Superior preventative fraction** vs Canarypox-vectored vaccine – 87% for Leucogen vs 78%<sup>5</sup>.
- **Proven safety and efficacy**<sup>2,6</sup>.
- **Purification process** ensures high quality of p45 protein in the final product.
- **Increased life expectancy** by >5 years in vaccinated cats<sup>5</sup>.



## Feligen® RCP

A modified live attenuated vaccine for the active immunisation of healthy cats and kittens against feline rhinotracheitis virus (FHV), feline calicivirus (FCV) and feline panleucopaenia virus (FPV).

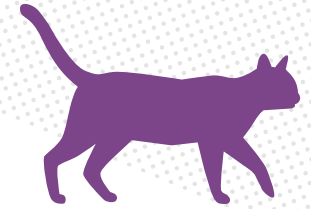
- **100% modified live attenuated vaccine** – all 3 strains are live attenuated strains. Modified live vaccines offer better protection by closely mimicking protection from natural infection<sup>7</sup>.
- **Rapid onset of immunity for FCV** – 3 weeks after the 1st injection of primary vaccination and demonstrated a higher level of protection than Purevax RCP FeLV after 1 single injection<sup>8</sup>.
- **Proof of FCV cross-protection** - FCV F9 is genetically very close to recent FCV strains isolated in the field in EU<sup>9</sup>. 97% cross-protection demonstrated against field strains for FCV, from the largest prospective analysis of FCV diversity and antigenic cross-protection at an EU level<sup>10</sup>. Modified live FCV F9 vaccination has been shown to elicit a cellular cross-reactive immunity against a heterologous FCV field strain<sup>11</sup>.
- **Proof of CPV cross-protection** - cats vaccinated with Feligen RCP developed acquired immunity against CPV variants<sup>12</sup>.



## Leucofeligen® FeLV/RCP

A fully authorised combination vaccine that combines all of the features and benefits provided by Leucogen and Feligen RCP to provide comprehensive protection against the 4 core feline viruses in a single vaccine.

- **Synergistic effect of Leucogen® with Feligen® RCP on FCV & FHV** - higher serological response against FCV and FHV<sup>13</sup>, 82.6% clinical protection for FCV even with a heterologous calicivirus strain<sup>14</sup> and more effective than Purevax RCP FeLV in terms of decrease of clinical signs, their duration and viral excretion for FCV<sup>15</sup>.
- **3 year duration of immunity against FeLV** after the 1st annual booster.
- **Convenient** – broad spectrum protection in a single injection.
- **Proven safety & efficacy**<sup>2,6</sup>



**3 year duration  
of immunity\*  
for FeLV with  
Leucogen &  
Leucofeligen**



\*Following primary course and first annual booster.

Shaping the future  
of animal health

**Virbac**

# Vaccine Protocol for Kittens and Cats

## Primary Vaccine Course

8-9 Weeks

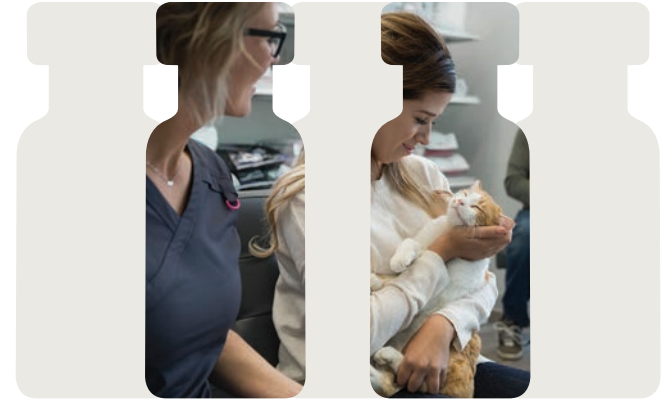


Leucofeligen

12 Weeks



Leucofeligen



1st Annual Booster



Leucofeligen

2nd Annual Booster



Feligen RCP

3rd Annual Booster



Feligen RCP

4th Annual Booster



Leucofeligen

## Recommended 3 Year DOI Booster Schedule

# The Benefit of Adjuvants



*Adjuvants are vaccine additives that boost immunity. They provide artificial signals to the immune system to initiate the immune response.*

Both our Leucogen and Leucofeligen vaccines are adjuvanted to enhance both the humoral and cell-mediated immune response; both of which are critical for protection against FeLV.

The adjuvants used in our cat vaccines are a combination of QA-21 and aluminium hydroxide - both of which have been used extensively in human and veterinary medicine.

Aluminium hydroxide stimulates the humoral response for antibody production, whilst QA-21 is a well known inducer of the cell mediated response. The inclusion of these adjuvants ensures the efficacy of Virbac's leukaemia component and also has the benefit of enhancing the RCP components (Fig.2).

*Adjuvants drive a stronger, longer (DOI), faster (OOI) immune response!*

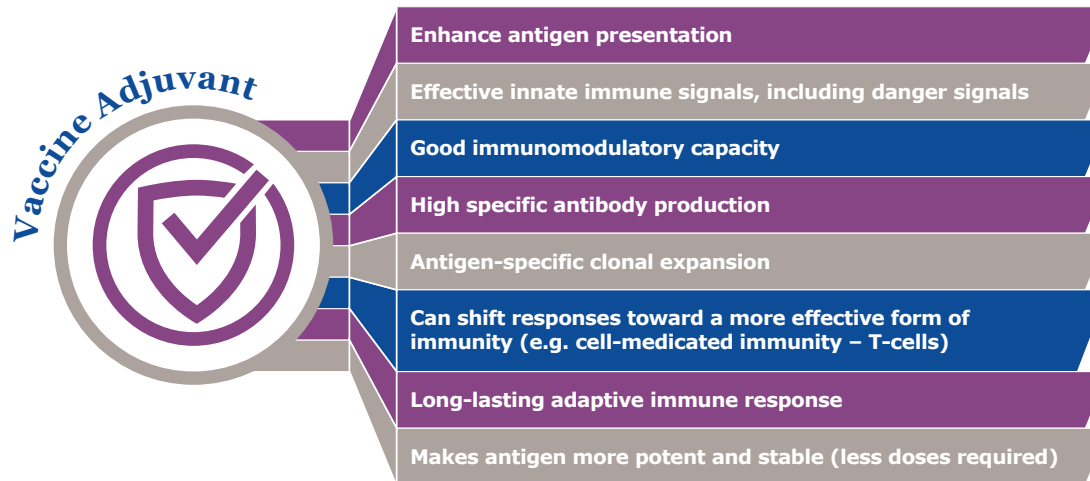


Fig 1. Characteristic Properties of Vaccine Adjuvants. Adapted from Bonam et al (2017)<sup>16</sup>

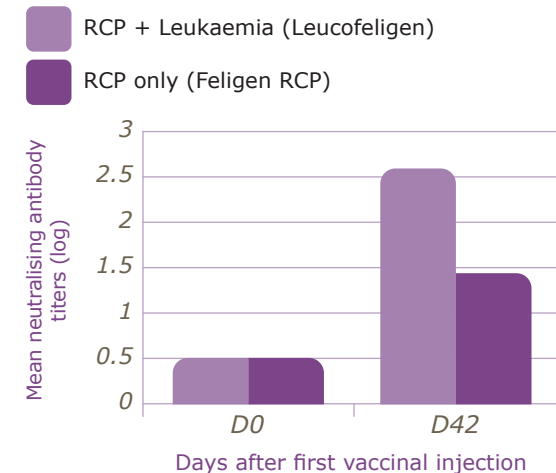


Fig 2. Virbac R&D study<sup>15</sup> comparing antibody titres for using adjuvanted vs non-adjuvanted vaccines. At 42 days after first vaccination the adjuvanted combination (Leucofeligen) significantly increased the neutralising antibody levels to all three components compared to the Feligen RCP vaccine. All three (FCV, FHV and FPV) components were enhanced, illustrating that adjuvants can enhance an already efficacious vaccine.

# *Dog Vaccines*



*A flexible and convenient vaccine range to create the optimal regime for your client's needs*



# Distemper, Hepatitis and Parvovirus



Canigen DHP/DHPPi vaccines offer a 3 year duration of immunity against distemper, hepatitis and parvovirus. Our choice of vaccines allows you to tailor your vaccine programme to the individual pet.



## Canigen® DHP

Modified live vaccine containing canine distemper virus, canine adenovirus and canine parvovirus.

- **Early protection** – a first dose may be given to puppies from 6 weeks of age
- **Rapid onset of immunity** of just one week
- **3 year duration of immunity**
- **Good compatibility** – can be administered at the same time as Canigen Lepto 4, Canigen Rabies, Canigen KC & Canigen Bb



## Canigen® DHPPi

Modified live vaccine containing canine distemper virus, canine adenovirus, canine parvovirus and canine parainfluenza.

- **Early protection** – a first dose may be given to puppies from 6 weeks of age
- **3 year duration of immunity** for the DHP component
- **Good compatibility** – can be administered at the same time as Canigen Lepto 4, Canigen Rabies & Canigen Bb



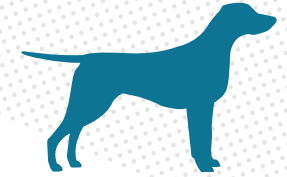
## Canigen® Parvo-C

*Modified live vaccine containing canine parvovirus Type 2 (CPV-2).*

- **Rapid onset of immunity** of just 1 week
- **3 year duration of immunity**
- **Single injection** establishes active immunity in dogs >10 weeks of age
- **Early protection** – can be given to puppies from 4 weeks of age
- **Cross-protection** - strain C154 protects against Types 2, 2b and 2c<sup>17</sup>.







## Canixin® DHPPiL

*Modified live vaccine containing canine distemper virus, canine adenovirus, canine parvovirus and canine parainfluenza virus, combined with a suspension of inactivated *Leptospira interrogans* serovar Canicola and *Leptospira interrogans* serovar Icterohaemorrhagiae.*

- **Convenient and cost-effective** vaccine protecting against distemper, hepatitis, parvovirus, parainfluenza and leptospirosis in a single product
- **Use from 8 weeks of age** with the second injection of the primary course 3-4 weeks later
- Ideal for practices where a straightforward vaccine protocol is advantageous or an L2 vaccine for leptospirosis is preferred



# Leptospirosis Vaccine

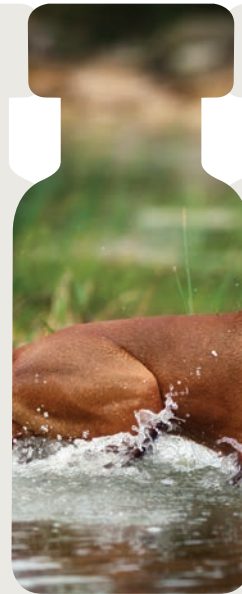


## Canigen® Lepto4

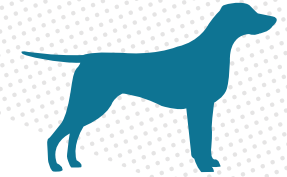
*Inactivated vaccine containing:*

*Leptospira interrogans serogroup Canicola serovar Portland-vere  
Leptospira interrogans serogroup Icterohaemorrhagiae serovar Copenhageni  
Leptospira interrogans serogroup Australis serovar Bratislava  
Leptospira kirschneri serogroup Grippityphosa serovar Dadas.*

- **Early protection** – can be administered from 6 weeks of age with the second vaccine in the primary course from 10 weeks
- **Good compatibility** – can be administered at the same time as Canigen DHP, Canigen DHPPI, Canigen KC & Canigen Bb
- 3 week onset of immunity
- **12 month duration of immunity** in line with annual booster vaccinations



# Bordetella bronchiseptica & Canine Parainfluenza Vaccines



## Canigen® KC

*Modified live vaccine containing Bordetella bronchiseptica and canine parainfluenza virus.*

- **Low volume** - 0.4ml for intra-nasal administration into a single nostril
- **Early protection** – can be administered from 3 weeks of age
- **Rapid onset of immunity** – just 72 hours for Bordetella bronchiseptica and 3 weeks for canine parainfluenza virus
- **12 month duration of immunity** to coincide with annual booster vaccinations
- Can be used concurrently with Canigen DHP & Canigen Lepto 4



## Canigen® Pi

*Modified live vaccine containing canine parainfluenza virus.*

- Annual vaccination schedule
- Can be used in intermediate years with Canigen Lepto 4
- **Compatible with Canigen Bb** to provide protection against canine parainfluenza virus where injectable vaccination is preferred



## Canigen® Bb

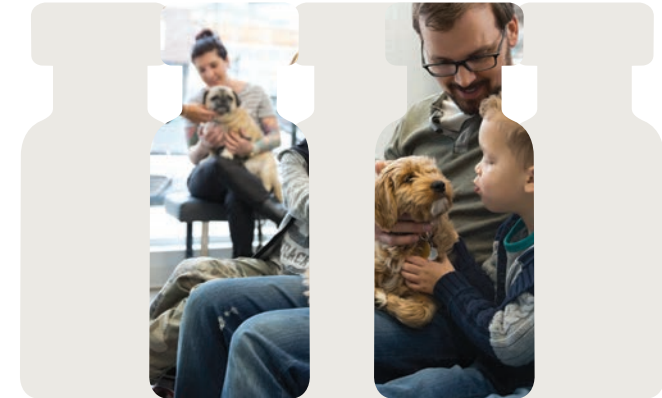
*Inactivated subunit vaccine for active immunisation against Bordetella bronchiseptica by subcutaneous injection for when intra-nasal Bordetella bronchiseptica vaccination is not possible or preferred.*

- **Convenient** ready to use formula presented in a 10ml multi-dose bottle
- Can be **stored at room temperature** (up to 25°C) for up to 4 weeks after broach
- **Extends protection** against Bordetella bronchiseptica in dogs vaccinated with Canigen KC in the last 12 months for a further year with a single dose
- Dogs can be vaccinated from 6 weeks of age
- Can be administered concurrently (at the same time but separate injections) with Canigen DHP, Canigen DHPi, Canigen Pi & Canigen Lepto 4





Example  
**Dog Vaccine Protocol**  
 Canigen DHP & Canigen Lepto 4

**Primary Vaccine Course**

6-8 Weeks	10-12 Weeks
 <p><b>Canigen DHP &amp; Canigen L4</b></p>	 <p><b>Canigen DHP &amp; Canigen L4</b></p>



**Booster Schedule**

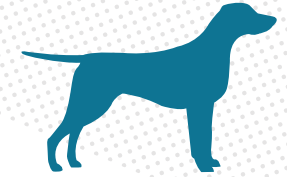
1st Annual Booster	2nd Annual Booster	3rd Annual Booster	4th Annual Booster	Optional Vaccine
 <p><b>Canigen DHP &amp; Canigen L4</b></p>	 <p><b>Canigen L4</b></p>	 <p><b>Canigen L4</b></p>	 <p><b>Canigen DHP &amp; Canigen L4</b></p>	 <p><b>Canigen KC Annual Booster</b></p>

**Notes:** Second L4 should be given 4 weeks after the first. Second DHP vaccinations should not be before 10 weeks of age. In situations of high risk, an additional Canigen Parvo-C may be advisable at 16-20 weeks. If a puppy >10 weeks of age has received a first vaccine elsewhere that is not a Canigen brand, please offer a Canigen Lepto 4 vaccine 4 weeks after the 2nd puppy vaccination. This ensures two Leptospirosis vaccines of the same brand are given in the primary course.

Example

# Dog Vaccine Protocol

Using Canigen KC with Canigen Bb



## Primary Vaccine Course

**6-8 Weeks**

**Canigen DHP & Canigen L4**

**4 Weeks Later**

**Canigen DHP, Canigen L4 & Canigen KC**

Our dedicated team of veterinary advisors are on hand to offer advice on tailoring your vaccine protocol to suit your client's needs.

**Contact us to discuss your requirements.**



## Booster Schedule

**1st Annual Vaccination**

**Canigen DHPi, Canigen L4 & Canigen Bb**

**2nd Annual Vaccination**

**Canigen L4, Canigen Pi & Canigen Bb**

**3rd Annual Vaccination**

**Canigen L4, Canigen Pi & Canigen Bb**

**4th Annual Vaccination**

**Canigen DHPi, Canigen L4 & Canigen Bb**

**Notes:** Second L4 should be given 4 weeks after the first. Second DHP vaccinations should not be before 10 weeks of age. In situations of high risk, an additional Canigen Parvo-C may be advisable at 16-20 weeks. If a puppy >10 weeks of age has received a first vaccine elsewhere that is not a Canigen brand, please offer a Canigen Lepto 4 vaccine 4 weeks after the 2nd puppy vaccination. This ensures two Leptospirosis vaccines of the same brand are given in the primary course.

Shaping the future  
of animal health



# *Rabies Vaccine*

*for Cats & Dogs*



## **Canigen® Rabies**

*An inactivated rabies vaccine to reduce clinical signs and mortality in dogs and cats.*

- **Rapid onset of immunity** - an adequate serological response ( $\geq 0.5$  IU) has been demonstrated 2 to 3 weeks after vaccination
- **3 year duration of immunity** provides enhanced protection and reduces the number of vaccinations required
- **Single dose** primary course from 12 weeks of age

Also available  
**Virbagen® Omega**



## Dogs

- Licensed for the treatment of parvovirus in dogs.
- 4-fold reduction in mortality in parvovirus cases.<sup>18</sup>
- Reduces clinical signs of parvovirus from 1 month of age.
- 2.5 MU/Kg IV once daily for 3 days.

## Cats

- Licensed for the treatment of FeLV and/or FIV infected cats.
- Reduces mortality in FeLV cats.
- Improves clinical scores in both FeLV and FIV cases.
- Use for non-terminal clinical stages, from the age of 9 weeks old.
- 1MU/kg SC; 5 day courses on days 0, 14 and 60.

**Veterinary licensed  
interferon, containing  
10MU of purified feline  
recombinant interferon.**

- Antiviral
- Antiproliferative
- Immunomodulatory



# Support

## Support available from Virbac

### Vaccine Amnesty Packages



We all lead busy lives and so it's little wonder that a proportion of clients miss their pet's yearly booster.

The increased cost of a 'restart' course can be prohibitive, putting some pets at risk.

One way of getting these clients back and retaining loyalty is to carry out a vaccine amnesty.

### What is a vaccine amnesty?

Virbac can offer practices a 'restart' vaccination course for the price of a single booster over a one-month period of your choice. We can provide you with materials including letters, vouchers and posters to promote your amnesty. Please speak to your Virbac Territory Manager for further details.

### Benefits to your practice

- Regain lost clients.
- Sign up new clients.
- Diagnose underlying diseases.
- Good PR for your practice.
- Increase awareness and owner compliance.

Amnesty poster



Amnesty voucher



Amnesty postcard



## Materials for your waiting room

To support all of our vaccines there are a range of materials available for your practice. Contact your Virbac Territory Manager to order any of our materials.



Cat vaccination leaflet



Dog vaccination leaflet



Waiting room/social media video

# Print Service

## Virbac Individual Printing

### VIP



Our VIP service has been specially developed for vaccine customers. Take advantage of our free printing and design services, where you can produce vaccination certificates and booster reminder cards which can all be tailor made to suit your practice.

Our easy-to-use templates give you the flexibility to personalise your materials as much as you like, from simple modifications to developing a unique design from scratch.

### Designed for minimal complication but maximal output, Virbac VIP will offer you:

- Starter templates for vaccine certificates and booster reminders.
- Simple step-by-step creativity tools.
- A wide range of images, colours and fonts to choose from.
- The ability to upload your own bespoke images, logos and even PDFs.
- Immediate proof availability for download (to check picture resolution and quality).
- A portal to upload customer addresses to print customer-specific booster reminders.
- The option to arrange posting directly to customers from print.
- Email and SMS services also available for you to contact your clients.



Vaccination record certificate



Dog and Cat Booster reminder cards



## References:

1. Leucogen, Feligen RCP & Leucofeligen Summary of Product Characteristics.
2. Jarrett O et al. Comparative studies of the efficacy of a recombinant feline leukaemia, The Veterinary Record 1996; 138:7-11.
3. Hofmann-Lehmann, R.; Holznapel, E.; Aubert, A.; Ossent, P.; Reinacher, M.; Lutz, H. Recombinant FeLV Vaccine: Long-Term Protection and Effect on Course and Outcome of FIV Infection. Vet. Immunol. Immunopathol. 1995, 46, 127–137, doi:10.1016/0165-2427(94)07012-V.
4. Arcidiaco, S.; Schreiber, P.; Fontaine, C.; Loukeri, S.; Poincelot, L.; Lesbros, C.; Gueguen, S. Onset of Protection of FeLV Vaccine after One Single Injection in Cats. Presented at the SEVC 2023, Spain.
5. Hofmann-Lehmann, R.; Cattori, V.; Tandon, R.; Boretti, F.S.; Meli, M.L.; Riond, B.; Pepin, A.C.; Willi, B.; Ossent, P.; Lutz, H. Vaccination against the Feline Leukaemia Virus: Outcome and Response Categories and Long-Term Follow-Up. Vaccine 2007, 25, 5531–5539, doi:10.1016/j.vaccine.2006.12.022.
6. Lutz H. Comparative studies of the efficacy of two leukaemia virus vaccines. Proceedings of the 4th European FECAVA Congress 1998.
7. Stone, A.E.S.; Brummet, G.O.; Carozza, E.M.; Kass, P.H.; Petersen, E.P.; Sykes, J.; Westman, M.E. 2020 AAHA/AAFP Feline Vaccination Guidelines\*. J. Am. Anim. Hosp. Assoc. 2020, 56, 249–265, doi:10.5326/JAAHA-MS-7123.
8. Arcidiaco, S.; Schreiber, P.; Fontaine, C.; Loukeri, S.; Poincelot, L.; Lesbros, C.; Gueguen, S. Comparative Efficacy of Two FCV Vaccines after One Single Injection in Cats. Presented at the SEVC 2023, Spain.
9. Hou, J.; Sánchez-Vizcaíno, F.; McGahie, D.; Lesbros, C.; Almeras, T.; Howarth, D.; O'Hara, V.; Dawson, S.; Radford, A.D. European Molecular Epidemiology and Strain Diversity of Feline Calicivirus. Vet. Rec. 2016, 178, 114–115, doi:10.1136/vr.103446
10. Afonso, M.M.; Pinchbeck, G.L.; Smith, S.L.; Daly, J.M.; Gaskell, R.M.; Dawson, S.; Radford, A.D. A Multi-National European Cross-Sectional Study of Feline Calicivirus Epidemiology, Diversity and Vaccine Cross-Reactivity. Vaccine 2017, 35, 2753–2760, doi:10.1016/j.vaccine.2017.03.030.
11. Spiri, A.M.; Novacco, M.; Meli, M.L.; Stim, M.; Riond, B.; Fogle, J.E.; Boretti, F.S.; Herbert, I.; Hosie, M.J.; Hofmann-Lehmann, R. Modified-Live Feline Calicivirus Vaccination Elicits Cellular Immunity against a Current Feline Calicivirus Field Strain in an Experimental Feline Challenge Study. Viruses 2021, 13, 1736, doi:10.3390/v13091736
12. Gillet, M.; Arcidiaco, S.; Almeras, T.; Lesbros, C.; Fournel, S.; Fontaine, C.; Gueguen, S. Seroneutralisation of Canine Parvovirus by Sera of Cats Vaccinated with Either Leucofeligen™ FeLV/RCP or Feligen™ CRP Vaccines. Presented at the 27th ECVIM-CA Congress 2017, Malta.
13. Gueguen, S.; Martin, V.; Bonnet, L.; Saunier, D.; Mähl, P.; Aubert, A. Safety and Efficacy of a Recombinant FeLV Vaccine Combined with a Live Feline Rhinotracheitis, Calicivirus and Panleukopenia Vaccine. Vet. Rec. 2000, 146, 380–381, doi:10.1136/vr.146.13.380-b.
14. Lesbros, C.; Martin, V.; Najbar, W.; Sanquer, A.; McGahie, D.; Eun, H.-M.; Gueguen, S. Protective Efficacy of the Calicivirus Valency of the Leucofeligen Vaccine against a Virulent Heterologous Challenge in Kittens. Vet. Med. Int. 2013, 1–7, doi:10.1155/2013/232397.
15. Almeras, T.; Schreiber, P.; Fournel, S.; Martin, V.; Nicolas, C.S.; Fontaine, C.; Lesbros, C.; Gueguen, S. Comparative Efficacy of the Leucofeligen™ FeLV/RCP and Purevax™ RCP FeLV Vaccines against Infection with Circulating Feline Calicivirus. BMC Vet. Res. 2017, 13, 300, doi:10.1186/s12917-017-1217-y.
16. Bonam, Srinivasa Reddy & Partidos, Charalambos & Sampath Kumar, Halmuthur & Muller, Sylviane. (2017). An Overview of Novel Adjuvants Designed for Improving Vaccine Efficacy. Trends in Pharmacological Sciences. 38. 10.1016/j.tips.2017.06.002.
17. Spibey et al, 2006. A canine parvovirus type 2 vaccine protects dogs following challenge with a recent type 2c strain. Proceedings of the 2006 World Congress WSAVA/FECAVA/CSAVA. Prague, October 11 to 14, 885-886.
18. K. De Mari et al. Treatment of canine parvovirus enteritis with interferon-omega in a placebo-controlled field trial, Veterinary Record (2003) 152, 105-108.

Leucofeligen® FeLV/RCP, Leucogen®, Feligen® RCP, Canigen® Rabies, Canigen® DHP, Canigen® DHPPI, Canigen® Pi, Cangien® Bb, Canigen® KC, Canigen® Parvo-C, Canixin® DHPPI, Canigen® Lepto4, Virbagen® Omega. **POM-V**

Please see product SPCs for more information on any of the vaccines listed in this brochure.

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Prescription decisions are for the person issuing the prescription alone.



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