# Florentero®

ACT

## Stabilisation of the physiological digestion with pre and probiotics

**LACTOBACILLUS ACIDOPHILUS CECT 4529**

\+ BAC NUTRA™

*MIXTURE OF PEPTIDES WITH ANTIMICROBIAL ACTION*


*Florentero®Act is a complementary feed intended for particular nutritional purposes for dogs and cats.*

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Candioli PHARMA

# BACNUTRA™

## *MIXTURE OF PEPTIDES WITH ANTIMICROBIAL ACTION*

**BACNUTRA™** is a mixture of fermentative origin, containing antimicrobial peptides, of which **Nisin A** and **Lactoferricin B** are the most representative, in liposomalized form with greater bioavailability and effectiveness. The key molecules to control the development of pathogenic microorganisms, with proven antibacterial effectiveness and stimulation of lysosomal enzyme activity[2,3,9,11,15,16].

Unlike antibiotics, which target certain specific cellular activities (e.g. DNA synthesis, protein or bacterial wall), antimicrobial peptides **target the lipopolysaccharide layer of cell membrane**, which is ubiquitousin microorganisms[2,3,9,15,16,19,20].

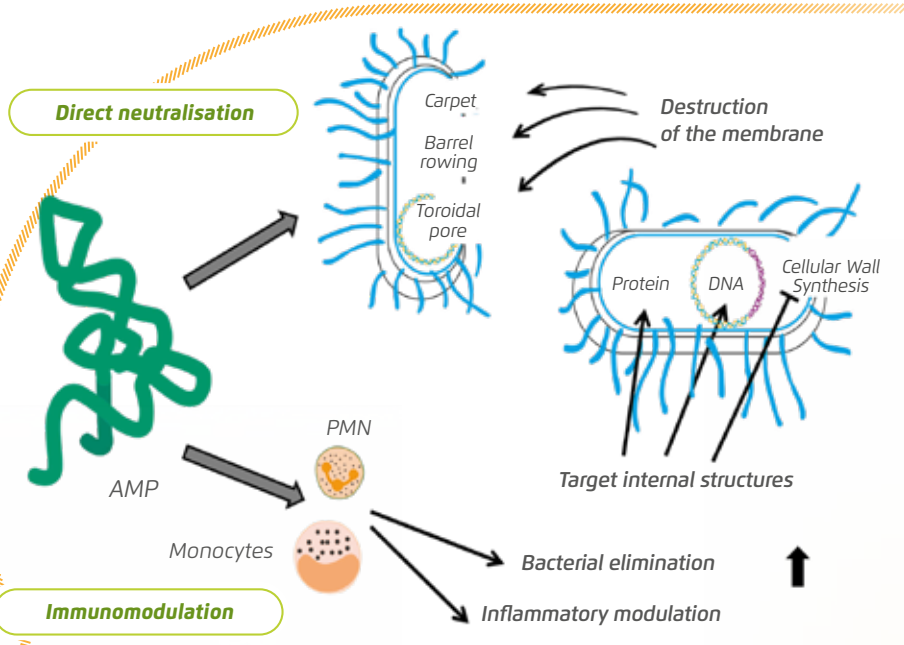


*Fig. 1:* ***Different modes of action of antibacterial peptides*** *(from Martin L et al, 2015). Antibacterial peptides can exert a direct neutralizing effect on bacteria by destroying the membrane through the formation of pores or by interacting with structures inside the bacterial cell. In addition to these direct effects, they can modulate immune system cells (neutrophils, T cells, macrophages), to control inflammation and/or increase bacteria elimination.*

**The selective action of cationic peptides is based on the different surface electrical charges that characterize «normal» cells from «abnormal» ones[12,15,16,27].**

Their antibacterial action is linked to their **ability to destroy the cell membrane** of pathogenic microorganism through electrostatic interactions and to their **ability to modulate the immune system** of the host[3,6,9,15,16,20,21,22,24] *(fig. 1)*.

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# The exclusive live strain of **Lactobacillus acidophilus (CECT 4529)**

***AUTHORISED AS INTESTINAL FLORA STABILISER FOR DOGS AND CATS (REG. EU 2018/1558)***

**Lactobacillus acidophilus**, one of the most studied probiotics for its effects on the intestinal well-being of dogs and cats[1,4,13,23,28,29,31]:

- ***NATURALLY PRESENT*** in the dog's intestinal microbiome[6]
- ***TESTED*** for its safety and harmlessness in dogs and cats[1,4,8]
- ***IMPROVES*** stool consistency[4,8,29]
- ***REDUCES*** faecal coliforms amount[4,26] and ***COUNTERACTS*** the development of clostridia and other enteropathogens[10,14,17,21,25,29,30,31]
- ***INCREASES*** lactobacilli concentration in the intestine[4,10,29]
- ***OPTIMIZES*** digestive processes[8,10,25,29,31]
- ***MODULATES*** local immune defences[14,18,23,28,31]
- ***REDUCES*** inflammatory intestinal status[17,18,28]
- ***PROTECTS*** the intestinal epithelium from pathogenic bacteria adhesion[18,25,26]



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Florentero® ACT

IN CATS

# *LACTOBACILLUS ACIDOPHILUS* AS A PROBIOTIC IN HEALTHY ADULT CATS

Mauro Bigliati (1) Raffaella Adami (1), Natascia Bruni (1)

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## MATERIAL AND METHODS

Ten cats (N=10; 7 females and 3 males) for 42 days
Control (C) n =5 / Treated (T) n = 5

The probiotic strain was incorporated into the diet after the first seven days.
Concentration $5x10^9$ $CFUxkg^{-1}$.

*At day 0, 14, 28 and 35:*

- **Body weight** (BW)
- **Body Condition Score** (BCS)
- **Fecal Score** (FS)
- **Fecal moisture** (FM)
- **Fecal bacterial populations**

*Statistical analysis: Anovra, Kruskal-Wallis and Wilcoxon test (SAS®)*

## RESULTS

Cats remained **in good health conditions** throughout the whole experimental period.

**No variations** of **BW** or **BCS** were found

FECAL MOISTURE

COLIFORM POPULATION

LACTOBACILLI POPULATION

*In T group than C group*

...AND IN DOGS

UNIVERSITÀ DEGLI STUDI DI MILANO
DIPARTIMENTO DI MEDICINA VETERINARIA

EFFECT OF *LACTOBACILLUS ACIDOPHILUS* D2/CSL (CECT 4529) SUPPLEMENTATION TO DIET ON THE WELFARE OF LABRADOR DOGS

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DIPARTIMENTO DI MEDICINA VETERINARIA

EFFECT OF *LACTOBACILLUS ACIDOPHILUS* D2/CSL (CECT 4529) SUPPLEMENTATION TO DIET ON THE WELFARE OF ENGLISH COCKER SPANIEL DOGS

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# Florentero® ACT


## *THE MOST COMPLETE FORMULA FOR THE STABILISATION OF THE PHYSIOLOGICAL DIGESTION WITH PRE AND PROBIOTICS FOR DOGS AND CATS*

**scFOS** (short-chain Fructo-oligosaccharides)

**MOS** (Mannan-oligosaccharides)

***PREBIOTIC ACTION***[10,29,30,31]

**Enterococcus faecium** (NCIMB 10415)

*to regulate the bacterial population of the intestine*[6,10,13,17,28,31]

***PROBIOTIC ACTION***

## Exclusive association of inactivated lactobacilli

- immune modulation
- competitive inhibition of pathogens
- prebiotic action
- reduction of cell death and inflammation

## Specific electrolyte complex

*to restore the proper hydrosaline balance* ***FEDIAF*** *Nutritional Guidelines 2019*

HECO®

- Sodium
- Potassium
- Magnesium
- Calcium
- Phosphate

## Synergistic combination of 3 strains of dried yeasts

*selected for their specific properties*

- **Synergistic effect** on immunomodulation and on intestinal inflammation data on file Lallemand 2016
- **Binding action** on intestinal pathogen bacteria data on file Lallemand 2016

## Yeast extract rich in bioavailable nucleotides[32,33,34,35]


# Florentero® ACT



## Stabilisation of the physiological digestion with pre and probiotics

### COMPOSITION

**Florentero®ACT** tablets

Fructo-oligosaccharides 36%, Yeasts products (obtained from Saccharomyces cerevisiae) 12.5%, Rice flour (ensiled) 4%, Mono and diglycerides of fatty acids esterified with organic acids (Glyceryl dibehenate), Sodium pyrophosphate, Lignocellulose (Pinus pinea), Magnesium stearate, Yeasts [brewers' yeast], Lupin protein meal, Sodium chloride, Potassium sulphate, Dicalcium phosphate, Magnesium oxide, Whey protein powder, Vegetable oil and fat (Sunflower oil), Dextrin.

**Florentero®ACT** palatable paste

Fructo-oligosaccharides 20%, Yeasts products (obtained from Saccharomyces cerevisiae) 12.5%

### ADDITIVES PER KG

**Florentero®ACT** tablets

*Vitamins:* Niacinamide 3a315 mg 19,200 – Thiamine hydrochloride 3a820 mg 2,500 – Pyridoxine hydrochloride 3a831 mg 800 – Riboflavin 3a825ii mg 640 – Vitamin E 3a700 IU 8 *Stabilisers:* Microcrystalline cellulose E460 mg 292,900 *Emulsifiers:* Lecithins 1c322 mg 30,000 Anti-caking agents: Colloidal silica E551b mg 6,700 *Gut flora stabiliser:* Enterococcus faecium DSM 10663/NCIMB 10415 4b1707 CFU 2.8 $x10^{11}$ - Lactobacillus acidophilus CECT 4529 4b1715 CFU 8.6 $x10^{12}$ *Sensory additives:* Vaccinium myrtillus L.: Blueberry tincture CoE 469 mg 6,720 - Thymus vulgaris L. Thyme extract CoE 456 mg 3,960 - Camellia sinensis (L.) O. Kuntze: Tea extract CoE 451 mg 1,840 *Technological additive:* * Pediococcus Pentasaceus DSM 12834 1k2103– Lactobacillus brevis DSM 12835 1k20710– Lactobacillus Buchneri DSM 12856 1k2075– Lactobacillus Plantarum DSM 12836 1k2078–Lactobacillus Rhamnosus NCIMB 30121 1k20711 **these additives are used for the ensiling of rice flour*

**Florentero®ACT** palatable paste

*Gut flora stabiliser:* Enterococcus faecium DSM 10663/NCIMB 10415 4b1707 1.5 $x10^{11}$ CFU - Lactobacillus acidophilus CECT 4529 4b1715 5.2 $x10^{12}$ CFU

### INSTRUCTIONS FOR PROPER USE

For dogs and cats, adults and puppies. **Florentero®ACT** may be used during period of and recovery from acute diarrheas. It is recommended that a veterinarian's opinion be sought before use. Water should be available at all times. The recommended length of time is 1 to 2 weeks, mixed with food or directly into the animal mouth.

**Tablets per day**

| | | |
|---|---|---|
| Cats / Dogs 0-5 kg | Dogs 10-20 kg | Dogs 35-50 kg |
| Dogs 5-10 kg | Dogs 20-35 kg | Dogs >50 kg |

1 TAB 10 KG

**Paste per day**

**Cats** ..... 1 ml every 5 kg of b.w.

**Dogs 0-5 kg** ..... 1 ml every 5 kg of b.w.

1 ML 5 KG

For tablets it is recommended to divide the daily quantity into two doses: in the morning and in the evening.
It is recommended to seek veterinarian advice before use or before continuing administration. Water at will is recommended.

Candioli cares for your pets

YES, WE ARE GMP CERTIFIED

www.candioli.com

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