

## Duralactin® helps manage inflammation — the key to complete joint health.

Feline joint problems have many causes, but treatments can be incomplete.

- Glucosamine and chondroitin sulfate limited to strengthening cartilage and tissue
- Steroids or NSAIDs treat inflammation, but can have troublesome side effects

### **Duralactin products are different**

Duralactin is more than a simple joint supplement; it helps reduce inflammation throughout the whole body. Only Duralactin products contain MicroLactin® to support joint health *and* help tame inflammation.

# Duralactin<sup>®</sup> the inflammation tamer



- **SYMPTOMS ARE:**
- WARMTH
- SWELLING
- LOSS OF

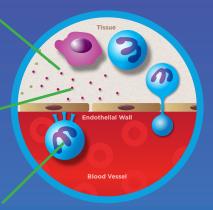
- REDNESS
- PAIN
- FUNCTION

### Treating inflammation is important

Inflammation is the body's normal response to damaged tissue and the presence of harmful organisms.

While the function of neutrophils is important to recovery from infection, the cells can also attack healthy tissue, leading to chronic inflammation and pain.

Neutrophils, the white blood cells that the body uses to fight infection, release substancesto destroy the source of the infection and tissue damage.





MicroLactin also helps maintain the proper action of macrophages,<sup>5</sup> cells that form in response to inflammation, and help build the immune response.

MicroLactin, the unique ingredient in Duralactin products, tames inflammation

It blocks the entry of neutrophils from the circulatory system into the site of tissue damage. This is achieved by helping maintain tight cell junctions.

It inhibits and reverses neutrophils from attaching to the endothelial wall.<sup>2,3,4</sup> This is done via its effects on the CD18 Glycoprotein complex on the surface of the neutrophil.

As a result, neutrophils remain in the bloodstream and do not increase inflammation.





# Duralactin<sup>®</sup> the inflammation tamer

### The benefits of Duralactin® products

- More than a joint supplement help reduce inflammation throughout the body
- Contain MicroLactin®
- Can be used as part of combination therapy to treat joint health and inflammation
- Ideal for long-term use with minimal side effects
- Suitable for high-risk animals (hepatitis, renal, and GI)
- Easy once-a-day dosage, with no loading dose, helps improve owner compliance
- Highly palatable, with a variety of flavors and dosage types

- · Specific formulations for feline
  - o Duralactin Feline L-lysine: Reduces inflammation to help control upper respiratory issues, in a palatable formula
  - Duralactin Feline + Fatty Acids Soft Chews:
     Helps boost heart health, control cholesterol,
     and helps reduce inflammation without the risk
     of kidney and liver side effects
- Backed by scientific studies
  - o Proven effective in multiple in vivo and in vitro studies.<sup>6,7,8</sup>
  - o Shows results within a week, with peak results in 10-14 days.

To find out more about Duralactin products to help tame inflammation and maintain joint health, contact your sales representative or visit *duralactin.com*.

### The Duralactin Feline Family of Products

### **DURALACTIN Feline Capsules** - 60 CT

- Contains 200 mg MicroLactin
- Convenient capsule that can be given alone, with food, or sprinkled over food

### **DURALACTIN Feline + Fatty Acids Soft Chews** - 60 CT

- Contains 300 mg MicroLactin
- Contains Omega-3 (DHA and EPA) and Omega-6 fatty acids
- · Palatable fish flavored heart-shaped soft chew



#### **DURALACTIN Feline L-Lysine Paste**

- Contains 200 mg MicroLactin
- Contains L-Lysine, Omega-3 and Omega-6 fatty acids
- Available in 32.5 mL syringe
- Palatable liver flavored paste

This product has not been approved by the FDA nor is it intended to diagnose, treat, cure, or prevent any disease. Should only be used through consultation of a veterinarian and in conjunction with an overall wellness program.

#### References

- 1. Stelwagen K, Ormrod DJ. An anti-inflammatory component derived from milk of hyperimmunized cows reduces tight junction permeability in vitro. *Inflamm res* 1998;47:384-388.
- Woodman R, Fuhrer P, Beck L, Kubes P. The effects of hyperimmunized milk factor (HIMF) on neutrophil adhesion in vivo. Abstract, Society For Leukocyte Biology, 29th National Meeting, Charleston, SC. 1992.
- Beck, LR and Fuhrer PF. Milk lymphocyte anti-adhesion factor and its role as an anti-microbial. Proceedings Indigenous Antimicrobial Agents of Milk - Recent Developments. Uppsala: Int. Dairy Fed. 1994;62-72.
- 4. Beck, LR, Fuhrer JP. Anti-inflammatory factor, method of isolation, and use, US Patent #5,980,953. Nov 1999
- Wilborn WH, Hyde BM, Beck LR, Fuhrer JP. Milk from Hyperimmunized Cows Stimulates Lysosomal Activity in Rat Lung Macrophages. Abstract: The 1999 Lovelace Respiratory Research Institute Symposium on Respiratory Immunology, Santa Fe, NM. October 1999.
- 6. Bello TR, Allen TM. The use of MicroLactin\* for inflammatory conditions in equine veterinary practice. J Eq Vet Sci 2005;25,9:379-382.
- 7. Bello TR, Allen TM. An intensive approach in the treatment of equine protozoal myeloencephalitis. *J Eq Vet Sci* 2008;28:479-483
- 8. Gingerich DA, Strobel JD. Use of client-specific outcome measures to assess treatment effects in geriatric, arthritic dogs: controlled clinical evaluation of a nutraceutical. *Vet Ther* 2003;4:376-386.

