

# Collavant<sup>®</sup> n2

Native (undenatured) type II collagen



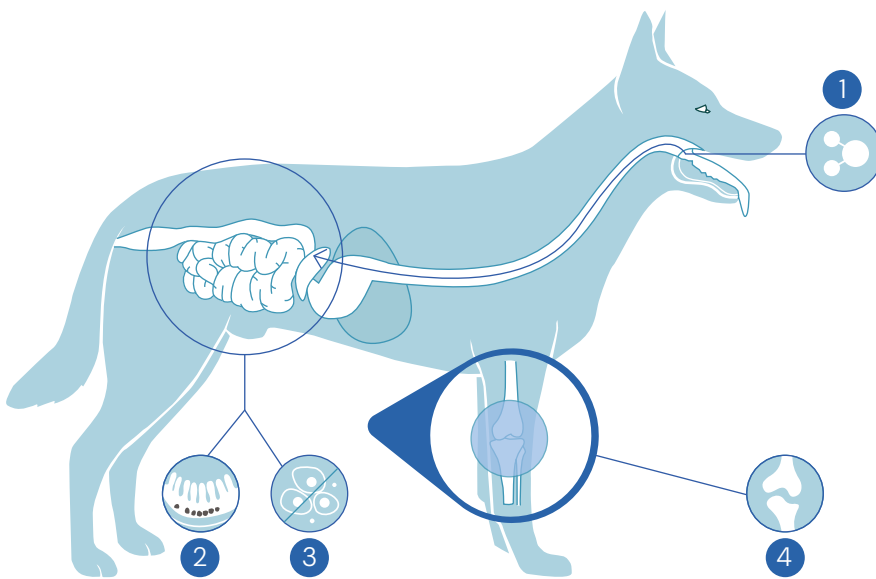
Joint Health



**Collavant<sup>®</sup> n2** is a trusted source of quality native (undenatured) type II collagen – the main structural protein in cartilage and other connective tissues. Compared to its hydrolysed counterpart, native collagen works via an immune-mediated

mechanism of action called Oral Tolerance, to support joint health at very low dose. This mechanism helps to regulate the body's response to endogenous type II collagen, reducing its degradation and supporting healthy joints.

## ORAL TOLERANCE COMPRISES THE FOLLOWING STAGES:



- 1 Collavant<sup>®</sup> n2** reaches the intestine.
- It interacts with the Peyer's patches in the intestine, which are responsible for immune surveillance.
- It turns off the immune response against endogenous type II collagen.
- It reduces collagen degradation in the joint supporting joint health.

## COLLAVANT<sup>®</sup> N2 BENEFITS



- Helps reduce collagen degradation in joints.
- Helps reduce inflammation markers of degenerative joint conditions.

## PRODUCT DOSE

nutritional supplements



For nutritional supplements, consult on a case-by-case basis.

**Dog:** 25 ppm **Cat:** 25 ppm

## PRODUCT DOSE

nutritional supplements

**mg / kg / day** 0.4

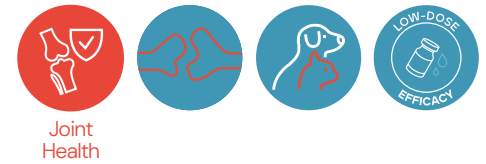
Drum of **10Kg, 5Kg and 1kg**

Shelf life: **36 months**



# Collavant<sup>®</sup>n2

Native (undenatured) type II collagen



## TRIAL

Mannelli LDC, et al. Low dose chicken native type II collagen is active in a rat model of osteoarthritis. *Osteoporosis Int.*, 2015, vol. 26, pg. 184.

## PURPOSE

To evaluate the role of low doses of chicken native type II collagen in the rat model of osteoarthritis, induced by sodium monoiodoacetate (MIA).

## MATERIALS & METHODS

0.3–10 mg/kg chicken native type II collagen was daily administered orally for 14 days starting from the day of MIA intra-articular injection. Glucosamine (250 mg/kg p.o.) was used as a reference compound. Pain behaviour measurements (paw pressure test; Plantar Test; Von

Frey test; Incapacitance test; Animex test) were performed on days seven and fourteen. On day fourteen, plasma samples were collected to evaluate biochemical parameters.

## RESULTS

Native (undenatured) type II collagen (1–10 mg/kg) significantly reduced mechanical hyperalgesia (Figure 1 paw pressure test) at fourteen days. Efficacy was comparable to those induced by 250 mg/kg glucosamine. On day fourteen, collagen counteracted thermal hyperalgesia, as measured by the Plantar Test. Moreover, collagen significantly decreased the response to mechanical sensitivity (Von Frey test) both on days seven and fourteen. As evaluated by the Incapacitance test, collagen (1–10 mg/kg) was able to reduce MIA-induced spontaneous pain. Repeated treatment with collagen improved the spontaneous mobility of the animals, as evaluated by the Animex test. Also, native type II collagen was able to reduce the MIA-dependent plasmatic increase of IL-1 $\beta$  (Figure 2) and TNF- $\alpha$ . Finally, repeated collagen administrations reduced the degradation of endogenous collagen since the plasmatic levels of the degraded fragment C2C were significantly decreased. The stimulus to a de novo synthesis of collagen (propeptide CPII) was maintained.

