

Safe, easy and effective.  
The only closed system  
for processing Autologous  
Conditioned Serum (ACS)

 **Orthokine<sup>®</sup>vet  
irap 10**

From the patient. For the patient.

## The Original – The Proven

Autologous treatment  
of joints, tendons  
and the back



  
**Dechra**  
Veterinary Products

For Technical Support or information, contact:  
**Dechra Veterinary Products** at: 866-933-2472 or [www.dechra-us.com](http://www.dechra-us.com)

02PB-IRA50015-0314

  
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**Joint disease is known to be a major obstacle for animals and their owners. Osteoarthritis is frequently diagnosed and can be a lengthy and expensive disease to treat.**

For chronic as well as acute joint disease, medication, NSAIDs and corticosteroids are frequently the treatments of choice. These therapies might be effective but they are either not long lasting or they require the long term administration of medication, which may cause severe localized or systemic side effects.

**The principle** of irap (interleukin-1 receptor antagonist protein) therapy is based on the production and subsequent accumulation of anti-inflammatory cytokines and growth factors in the patient's serum. After venous blood withdrawal using the patented Orthokine vet irap 10 syringe from Dechra, whole blood is incubated at 37°C/98.6° F. During incubation leukocytes are stimulated by medical grade "A" glass beads (inside the syringe) to produce cytokines and growth factors. These accumulate in the serum. After centrifugation of the Orthokine vet irap 10 syringe, autologous conditioned serum (ACS) can be withdrawn and used directly in the patient.

### Veterinarians successfully utilize irap therapy for:

- Chronic joint disease, often when Hyaluronic Acid and/or corticosteroids do not show satisfactory results
- Post-surgical treatment after joint surgery
- Acute joint inflammation combined with synovial effusion
- Tendon lesions (acute/chronic)
- Injection of facet joints
- Infiltration of the back
- Prophylactic injections in off season or before performance

# Orthokine®vet irap 10

From the patient. For the patient.

Experimental and clinical studies show that injection of ACS, obtained with the **patented Orthokine vet irap 10-ACS system**, is a highly potent and safe treatment for osteoarthritis, tendonitis, lumbar stenosis and herniated disc, as well as muscle trauma.<sup>1, 2</sup>

Orthokine vet irap 10 is a new system for use in small animals, as well as for single dose injections in horses. Orthokine vet irap 10 can be centrifuged in conventional tabletop centrifuges without a special rotor.

### Reasons to use the original, proven irap product:

- The **only clinically proven** ACS system
- The **only closed** and therefore safe ACS system
- **Uncomplicated** handling (no decanting of whole blood)
- **Reliable** final product (stable cytokine levels)
- Medical grade glass beads **without coating**; No danger of contamination with foreign substances

#### References

<sup>1</sup> Wehling P, Moser C, Frisbie D, et al. Autologous conditioned serum in the treatment of orthopedic diseases, *Biodrugs* 2007;21;323-332

<sup>2</sup> Majewski M et al. Accelerated Healing of the Rat Achilles Tendon in Response to Autologous Conditioned Serum, *AJSM* 2009;37(11);2117-25

## Processing of Autologous Conditioned Serum (ACS) with the Orthokine vet irap 10



1. – Aseptically prepare venipuncture site.  
– Puncture vein and then attach vacutainer adapter (included) to Orthokine vet irap 10 syringe by pushing it in and twisting slightly to the right.  
– Draw blood into the Orthokine vet irap 10 syringe until plunger locks into place and syringe is full. Plunger stem can now be broken off and discarded.  
– Use one Orthokine vet irap 10 syringe to collect up to 2-4 mL ACS.



2. – Label each syringe with collection date and patient information.  
– Incubate at **98.6°F (37°C) for 6-9 hours.**



3. – Fill balance syringe (included) with water.  
– Always load rotor symmetrically.  
– Centrifuge the Orthokine vet irap 10 syringe for **20 min between 3000-3300 RPM.**



4. – Disinfect working surface.  
– Disinfect port of syringe prior to collection of serum.



5. – Aseptically inject 3-4 mL air.  
– Aspirate ACS with 5 mL syringe using needle included in package  
– Caution: Avoid aspiration of erythrocytes!  
– Seal 5 mL syringes with sterile caps (included).



6. – Filter ACS through included 0.2 micron filter and inject immediately or seal with sterile cap and freeze at **-18°C (0°F)** or colder.  
– Thaw ACS at room temperature before injecting if previously frozen.  
– Shelf life: 7 months post processing.