



# At a glance

## Comparisons worth knowing

# ACS vs PRP



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VS



Osteokine®  
Easy PRP Preparation



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## ACS (Autologous Conditioned Serum)

### Definition

- autologous serum conditioned through the irap<sup>®</sup>-syringe
- filterable, cell free

### Effect

- analgetic
- anti-inflammatory
- inhibition of tissue degeneration
- support of regeneration of damaged tissues

### Biological performance

- competitive blockade of IL-1 receptors
- stimulation of regenerative processes by growth factors
- active contents: IL-1Ra, growth factors, other cytokines

### irap<sup>®</sup>-ACS is used, amongst others, in the autologous treatment of

- osteoarthritis
- tendinopathies
- back pathologies

### Processing

- venous blood withdrawal (no additives) with the irap<sup>®</sup>-syringe
- generation of anti-inflammatory cytokines and growth factors by blood incubation in the syringe induced by the presence of medical grade glass beads
- centrifugation
- separation of serum in 2-4 mL aliquots
- direct use (injection) or storage at  $\leq -18^{\circ}\text{C}$
- triple use recommended

### Advantages

- side effects very rare (100% autologous)
- reduction/abandonment of NSAIDs (gastrointestinal issues)
- support of natural processes
- high effectiveness
- long lasting effect
- reduction/abandonment of corticosteroids (catabolic effect on cartilage)

## PRP (Platelet Rich Plasma)

### Definition

- plasma with significantly elevated thrombocyte concentration from venous blood
- non filterable, cellular content: thrombocytes (x4-14), leukocytes (x1.2-5)

### Effect

- enhanced chemotaxis
- enhanced and accelerated regeneration of injured tissue
- reduction of scar formation

### Biological performance

- activation of tissue regeneration by growth factors
- active contents: thrombocytes, leukocytes
- growth factors are continuously released after the activation of thrombocytes (e.g.: PDGF, TGF, FGF, EGF)

### Osteokine<sup>®</sup>-PRP is generally used for the autologous treatment of

- tendon
- bone
- skin

### Processing

- venous blood withdrawal (with anticoagulant)
- double centrifugation using the Osteokine<sup>®</sup>-Kit
- direct use (within 8 h at  $4^{\circ}\text{C}$ ), no frozen storage if vital thrombocytes are required
- generally single treatment

### Advantages

- side effects very rare (autologous)
- accelerated healing
- enhanced restitution of injured tissue
- support of natural processes