

High Concentration Made Simple



THE MOST TRUSTED  
PRP TECHNOLOGY



# WHY TROPOCELLS® PRP

Tropocells® PRP, takes the complexity out of the platelet-rich plasma (PRP) preparation process. It delivers a highly purified platelet concentrate that preserves platelets and removes almost all erythrocytes and neutrophils that promote inflammation!



## High Concentration

80% (+/- 9%) Platelet Yield + customizable concentrations up to 4.5x\*



## Safe & Autologous

Class IIb Medical Device, Regulatory Compliant. Non-Pyrogenic - Sterile - Closed System. FDA Cleared 510(k) Class II Medical Device (BK110035)



## Monocyte Solution

86.2% of white blood cells in PRP preparation are monocytes



## Simple, Quick, & Predictable

Small blood draw for high volume plasma, easy to use, reproducible collection process



## Low Inflammation

Eliminates almost 100% of red blood cells and 95% of granulocytes



## Comfortable

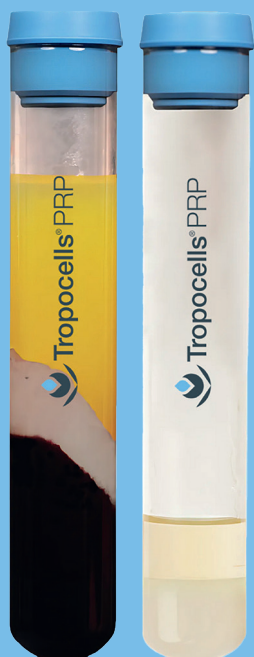
Proprietary anti-coagulant produces physiologic pH, which reduces irritation<sup>2</sup>

1 Simon M. Chatfield, Nathalie Thieblemont, and Véronique Witko-Sarsat. Expanding Neutrophil Horizons: New Concepts in Inflammation. *J Innate Immun.* 2018; PMID: 30257246 PMCID: PMC6785650 DOI: 10.1159/000493101

2 Ehrhardt Proksch. pH in nature, humans and skin. *J. Dermatol.* 2018 Sep; PMID: 29863755 DOI: 10.1111/1346-8138.14489

\* Verified in two published peer reviewed studies. 4.5x achieved by removing PPP prior to collecting PRP.

## FEATURES & BENEFITS



### Vacuum sealed, internally coated glass tube designed to:

- Prevent platelets from “sticking” to tube walls
- Precisely draws blood at a pressure that prevents lysing of the cells

### Proprietary anti-coagulant modified to:

- Maintain a neutral pH to prevent premature platelet aggregation and support optimal cellular and platelet functionality

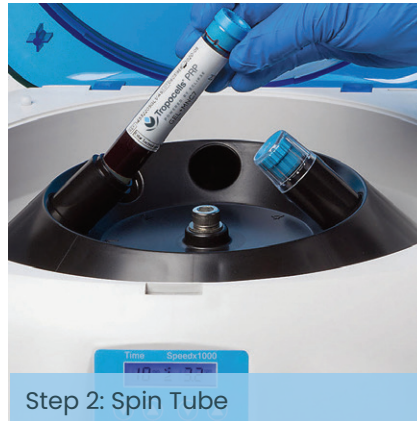
### Patented separator gel designed to:

- Achieve platelet recovery levels of 80% ( $\pm 10\%$ ), ensuring high yield and consistency
- Remove 99.9% of RBC
- Remove 92-96% of Neutrophils

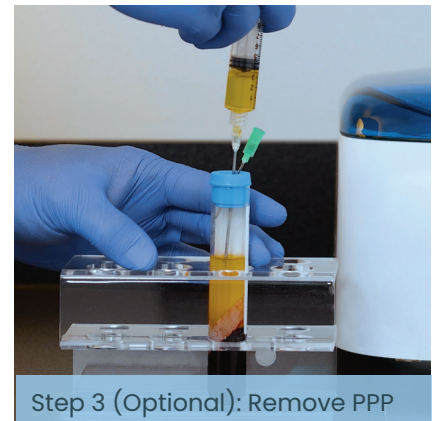
# PRP MADE SIMPLE



Step 1: Draw Blood



Step 2: Spin Tube



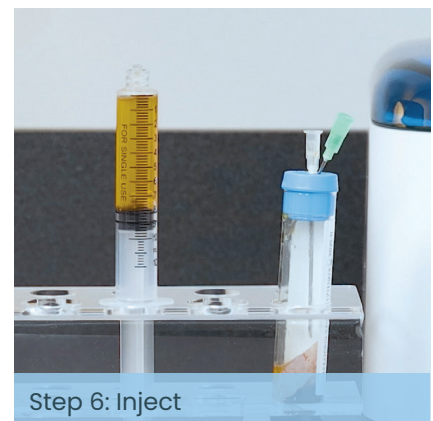
Step 3 (Optional): Remove PPP



Step 4: Re-suspend Platelets



Step 5: Collect



Step 6: Inject

## 4 FACTS EVERY PRP PROVIDER SHOULD KNOW

1. Platelets release growth factors<sup>1</sup>
2. Cytokines can cause tissue damage<sup>2</sup>
3. Neutrophils inhibit healing<sup>3</sup>
4. Monocytes enhance healing<sup>4</sup>

1 Eizaburo Kobayashi, Laura Flückiger, Masako Fujioka-Kobayashi, Kosaku Sawada, Anton Sculean, Benoit Schaller, Richard J Miron. Comparative release of growth factors from PRP, PRF, and advanced-PRF. *Clin Oral Investig*. 2016 Dec; PMID: 26809431 DOI: 10.1007/s00784-016-1719-1

2 A Ferrante, I C Kowanko, E J Bates. Mechanisms of host tissue damage by cytokine-activated neutrophils. *Immunol Ser*. 1992; PMID: 1504146

3 Erminia Mariani, and Lia Pulsatelli. Platelet Concentrates in Musculoskeletal Medicine. *Int J Mol Sci*. 2020 Feb; DOI: 10.3390/ijms21041328

4 José Fábio Lana, Stephany Cares Huber, Joseph Purita, Claudia H. Tambeli, Gabriel Silva Santos, Christian Paulus, and Joyce M. Annichino-Bizzacchi. Leukocyte-rich PRP versus leukocyte-poor PRP - The role of monocyte/macrophage function in the healing cascade. *J Clin Orthop Trauma*. 2019 Oct; PMID: 31700202 PMCID: PMC6823808 DOI: 10.1016/j.jcot.2019.05.008





## Optimal PRP Formula

### Cell count and growth factor statistics



Tropocells® PRP	11 ml tube	22 ml tube	40 ml tube
Platelet concentration fold*	1.8x - 4x	1.8x - 4x+	1.8x - 4x++
Platelets per dose (up to)	2.5 billion	5 billion	10 billion
PRP Yield (~1.8x)	6 ml	13 ml	24 ml
PRP Yield (~4x)	2 ml	4 ml	8ml
RBC ( $10^6/\mu\text{l}$ )	<0.1	<0.1	<0.1
WBC ( $10^3/\mu\text{l}$ )	0.2	0.2	0.2
Neutrophils removal (%)	92-96	92-96	92-96
Mononuclear cells %	>86.2	>86.2	>86.2
PDGF (pg/ml)	2048	2048	2048
VEGF (pg/ml)	220	220	220
EGF (pg/ml)	269	269	269

**Regulatory status:** (i) CE certified Class IIb; (ii) FDA cleared 510(k) Class II medical device: Tropocells PRP is intended for the safe and rapid preparation of autologous platelet-rich plasma (PRP) from a small sample of blood at the patient point of care. The PRP is mixed with autograft or allograft bone prior to application to a bony defect for improving handling characteristics. 510(k) number: BK110035



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