|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **System** | **Reference** | **PLATELET-RICH PLASMA** | | | | **PREPARATION** | | | **GROWTH FACTORS** | | |
| **Platelet x 103/μL** | **Platelet**  **Factor Increase from Whole Blood** | **White Blood Cells x 103/μL** | **PRP Vol (mL)** | **Blood Vol (mL)** | **Force** | **Centrifuge**  **Time (min)** | **PDGF-AB**  **(ng/mL)** | **TGF-B1**  **(ng/mL)** | **VEGF**  **(ng/mL)** |
| **Whole Blood** | **Marx,**  200410 | **150-350, average of 200** |  |  |  |  |  |  |  |  |  |
| **ACE Surgical** | Marx,  200431 | 493 ±245 | 1.8 | - | 7.8 ±0.6 | - | - | - | 35 ±17.2 | 43.0 ±17.9 | - |
| **Anitua Protocol** | Marx,  200431 | 433 ±129 | 1.9 | - | 9.5 ±4.1 | - | - | - | 35 ±11.3 | 52.0 ±7.6 | - |
| **Arteriocyte MagellanPRP™** | Castillo, 201132 | 780.2 ±24.7 | 2.8 ±0.8 | 11.0  ±8.2 | 6.0 | 26 | 1200g | 17 | 34.4  ±10.7 | 0.2 ±0.1 | 1.2 ±0.8 |
| Kushida, 201429 | 1520 | 9.05 | 0.0014 | 3.0 | 60 | 610g; 1240g | 4; 6 | 74.8 | 1719a | 0.05a |
| **Arthrex ACP®** | Mandle, 201352 | 261 | 1.7 | 2.80 | 4.0 | 9.0 | - | - | 27.65 | 15.98 | 0.1 |
| Magalon, 201426 | 372.90  ±77.7 | 1.31  ±0.15 | 0.39  ±0.33 | 4.03  ±0.35 | 11 | 1500g | 5 | 13.126  ±9.99 | 2.66  ±2.21 | 0.153  ±0.093 |
| **Arthrex Angel®** | Mandle, 201453 | 774.2 ±324.0 | 4.8 ±0.7 | - | 6.9 | 70 | - | 17 | - | - | - |
| **Biomet 3i PCCS®** | Marx,  200431 | 939 ±284 | 3.24 | - | 7.0 ±1.5 | - | - | - | 103 ±27 | 144 ±31 | - |
| Mazzucco, 200824 | 800b | 4.0c | - | 8.5 ±3.5 | 50 | - | 10 | 103 ±27 | - | - |
| **Biomet GPS®II** | Kaux,  201120 | 477 | 1.89d | 7.94 | 6.01 | 50 | 180g | 15 | - | - | - |
| **Biomet GPS®II (Biomet® Biologics Drucker centrifuge)** | Kaux,  201125 | 1546.5b | 6.2 to 9.4 | 312.88 | 6.2 | 52 | 3200 rpm | 15 | - | - | - |
| **Biomet GPS®III** | Castillo, 201132 | 566.2 ±292.6 | 2.07 ±1.1 | 34.4 ±13.6 | 6.0 | 55 | 1100g | 15 | 18.7  ±12.8 | 0.10 ±0.08 | 2.4 ±1.1 |
| **Biomet GPS®III (Biomet Biologics Drucker centrifuge)** | Kaux,  201125 | 1519.03b | 7.3 to 8.3 | 275.4 | 6.6 | 52 | 3200 rpm | 15 | - | - | - |
| **Biomet GPS®III Mini** | Magalon, 201426 | 1135.20  ±422.15 | 3.93  ±1.09 | 30.36  ±9.81 | 3.21  ±0.15 | 27 | 3200g | 15 | 29.71  ±24.25 | 5.690  ±3.042 | 1.205  ±0.786 |
| **Biotechnology Institute PRGF®-Endoret®** | Mazzucco, 200824 | 147.37b | 0.737c | - | 9.5 ±4.1 | 20 | - | - | 47 ±21 | - | - |
| **Clinaseal Sealed Technology Centrifuge** | Marx,  200431 | 401 ±267 | 1.64 | - | 7.6 ±1.5 | - | - | - | 46 ±15.3 | 55 ±19 | - |
| **Curasan® AG** | Marx,  200431 | 344 ±192 | 1.39 | - | 7.6 ±1.5 | - | - | - | 39 ±11.4 | 39±16 | - |
| Mazzucco, 200824 | 130.26b | 0.65c | - | 7.6 ±1.6 | 15 | - | - | 35 ±17 | - | - |
| Kaux,  201120 | 693.8 | 2.75d | 320 | 1.0 | 8.5 | 1000g; 2300g | 10; 15 | - | - | - |
| **DePuy PEAK®** | Mandle, 201427 | 1242.4 | 6.9 | - | 3.3 | 27 | - | 3 | - | - | - |
| **Emcyte GenesisCS** | Kevy,  200630 | 1643 ±421 | 9.13 | 20 ±7.4 | - | 52 | 2400 rpm | 12 | - | - | - |
| Mandle, 201352 | 1355 | 9.7 | 49.7 | 5.0 | 55 | - | - | 198.22 | 38.54 | 0.442 |
| **Emcyte Pure PRP™** | Mandle, 201352 | 1128 ±319 | 6.7 ±0.3 | 0.0149 | 6.6 ±0.2 | 48 | 2500g; 2500g | 1.5; 4 | - | - | - |
| Mandle, 201453 | 1067.6 ±253 | 6.9 ±0.7 | - | 7.4 | 75 | 3800 rpm; 3800 rpm | 1.5f; 5 | - | - | - |
| **Fibrinet® PRFM** | Mazzucco, 200824 | 236.36b | 1.18c | - | 4.4 ±0.2 | 8.0 | - | - | 105 ±30 | - | - |
| **Friadent-Schütze Protocol** | Weibrich, 200328 | 1440.5 ±501.7 | 5.2h | 21.69 ±16.43 | 0.8 | 7.5 | 24000 rpm; 3600 rpm | 10; 15 | 251.6  ±115.4 | 196.8 ± 109.6 | - |
| **Glofinn GLO PRP** | Kushida, 201429 | 891 | 5.28 | 0.0101g | 0.6 | 8.5 | 1800g; 1800g | 3; 6 | 67.3 | 1370a | 0.039a |
| **Harvest® Smart PReP** | Weibrich, 200328 | 1228 ±312 | 4.43h | 19.26 ±8.08 | 7.0 | 52 (female); 48 (male) | - | 12 | 208 ±85.2 | 77.2 ±54.8 | - |
| Marx,  200431 | 1086 ±227 | 4.04 | - | 7.4 ±0.5 | - | - | - | 133 ±29.2 | 170±42 | - |
| Mazzucco, 200824 | 670b | 3.35c | - | 10.0 | 50 | - | - | 133 ±29 | - | - |
| **Japan Paramedic Co., JP200** | Kushida, 201429 | 871 | 5.16 | 0.026 | 1.0 | 20 | 1000g; 800g | 6; 8 | 93.5 | 1563a | 0.041a |
| **Korea Melsmon Co., Thrombo Kit** | Kushida, 201429 | 700g | 4.14 | 0.0149 | 1.0 | 8.5 | 1720g | 8 | 39g | 910a | 0.030a |
| **KYOCERA®** | Kushida, 201429 | 1312 | 7.77 | 0.014g | 2.0 | 20 | 600g; 2000g | 7; 5 | 76.2 | 1508.2a | 0.043a |
| **Landesberg Protocol (Mistral 3000i centrifuge)** | Landesberg*,* 200014; Marx,  200431 | 336 ±141 | 1.5 | - | 10.6 ±2.4 | - | 200g; 200g | 10; 10 | 26 ±13.7 | 50 ±11 | - |
| **Landesberg Protocol** | Mazzucco, 200824 | 339.6b | 1.7c | - | 10.6 ±2.4 | 60 | - | - | 33 ±7 | - | - |
| **Liège University Hospital Protocol (Jouan BR4i centrifuge)** | Kaux,  201120 | 447.8 | 1.78d | 0.210 | 2.08 | 8.0 | 180g | 10 | - | - | - |
| **MTF Cascade® PRP** | Castillo, 201132 | 443.8 ±24.7 | 1.62 ±0.1 | 1.1 ±0.2 | 7.5 | 18 | 1100g | 6 | 9.7 ±3.6 | 0.10 ±0.08 | 0.3 ±0.3 |
| **MyCells®** | Kushida, 201429 | 840g | 4.97 | 0.005g | 1.0 | 10 | 2054g | 7 | 72.2 | 1350a | 0.038a |
| **Plateltex®** | Mazzucco, 200824 | 252.8 b | 1.264c | - | 5.0 ±0.4 | 8.0 | 180g | 10 | 60 ±20 | 0.755 | 0.36 |
| Kaux,  201120 | 864.6 | 3.43d | 5.76 | 0.34 | 6.0 | 180g; 1000g | 10; 10 | - | - | - |
| **Regenlab RegenKit®** | Mazzucco, 200824 | 360b | 1.8c | - | 5.0 ±0.5 | 10 | - | - | 140 ±14 | - | - |
| Kaux,  201120 | 390.6 | 1.55d | 0.020 | 3.07 | 6.0 | 300g | 5 | - | - | - |
| Magalon, 201426 | 453.67  ±262 | 1.59  ±0.84 | 10.61  ±3.64 | 3.10  ±0.61 | 8 | 1500g | 9 | 22.945  ±16.918 | 4.181  ±2.74 | 0.366  ±0.253 |
| **Selphyl®** | Kushida, 201429 | 88 | 0.52 | 0.0003 | 2.0 | 8.0 | 525g | 15 | 12.2 | 384a | 0.029a |
| Magalon, 201426 | 330.6 ±95.64 | 1.16 ±0.27 | 1.29 ±2.02 | 4.10 ±0.43 | 8.0 | 1100g | 6 | 9.47 ±5.83 | 3.023 ±2.375 | 0.394 ±0.724 |
| **Vivostat®** | Mazzucco, 200824 | 816b | 4.08c | - | 5.0 | 120 | - | - | 130 ±29 | - | - |

**Supplementary Table 1. Comparison of Mean Platelet, WBC, and Growth Factor Counts Among Commercial PRP Preparation Systems**

a Value approximated from chart in Kushida (2014). However, there is a conversion discrepancy between the units provided in the chart and the text, so the values and units from the chart were used for consistency.

b Value approximated from the % platelet recovery value in the paper using the average WB platelet concentration from Marx (2001) and % platelet capture efficacy = (PRP volume x PRP platelet concentration) / (Whole blood volume x Whole blood platelet concentration).

c Factor increase calculated using the average Whole blood platelet concentration from Marx (2001).

d Factor increase (PRP platelet concentration/Whole Blood platelet concentration) calculated using average Whole Blood platelet concentration given in paper (2.52x105 platelet/μL).

e Value approximated from the average Whole Blood WBC concentration from Castillo (2011).

f Value discrepancy in text (1.5min) and table (2.5min).

g Value approximated from chart in paper (exact value not given in paper).

h Factor increase calculated using the average WB platelet concentration given in paper (2.7681x105 platelet/μL).