**Supporting Information**

**Table S1** Effect of the donkey donor (stallion) on refrigerated (+4°C) sperm kinetics, bioenergetics, and oxidative status

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| --- | --- | --- | --- |
| Stallion | J1 | J2 | J3 |
| Tot Mot | % | 48.0 ± 1.2*A* | 32.8 ± 1.2*B* | 18.7 ± 1.7*C* |
| Prog Mot | % | 15.9 ± 0.6*A* | 7.7 ± 0.4*B* | 3.2 ± 0.6*C* |
| VCL | µm/s | 87.6 ± 1.6*A* | 76.1 ± 1.1*B* | 74.1 ± 1.8*B* |
| VSL | µm/s | 43.0 ± 0.9*A* | 32.4 ± 0.6*B* | 31.3 ± 1.0*B* |
| VAP | µm/s | 59.1 ± 1.3*A* | 49.3 ± 0.9*B* | 49.0 ± 1.5*B* |
| ALH | µm | 3.59 ± 0.10 *A* | 3.04 ± 0.07*B* | 2.85 ± 0.12*B* |
| BCF | Hz | 8.87 ± 0.27 *A* | 7.60 ± 0.19*B* | 6.43 ± 0.31*C* |
| MMP | F0B/F0A | 35.8 ± 1.4*A* | 43.0 ± 1.1*B* | 63.2 ± 2.2*C* |
| LPO | (F0A)/(F0A+ F0B) × 100 | 20.5 ± 0.5*A* | 22.7 ± 0.3*B* | 22.6 ± 0.5*B* |
| Anti-LPO | (F0B)/(F0A+ F0B) × 100 | 60.5 ± 0.6*A* | 63.2 ± 0.4*B* | 63.2 ± 0.6*B* |
| NBT | Formazan µg | 9.6 ± 0.3*a* | 8.8 ± 0.2*b* | 9.4 ± 0.3 |

Data (mean ± SE) have been covariated by time of incubation, extender and sperm concentration. Different capital and small letters on the same row indicate statistically significant differences (*P* < 0.01 and *P* < 0.05, respectively).

**Table S2** Correlation coefficients (R) and probability values (*P*) among the evaluated parameters of sperm functionality over all the treatments (*n* = 4 extenders and *n* = 3 sperm concentrations), stallion (*n* = 3) and time of incubation (*n* = 5)



NS, not statistically significant.