**S1 Table. Release site Ca2+ transport parameters.**

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| VJSR | JSR volume | 1.113 × 10-11 μL |
| V­SS | Subspace volume | 0.812 × 10-12 μL |
| VSM | Sub-membrane volume | 5.85 × 10-11 μL |
| Bcsqn | Calsequestrin buffer concentration | 13.5 mM |
| Kcsqn | Calsequestrin buffer affinity | 0.63 mM |
| BSR | SR membrane buffer site concentration | 0.047 mM |
| KSR | SR membrane buffer site affinity | 0.00087 mM |
| BSL,SS | Sarcolemmal membrane buffer site concentration (subspace) | 1.124 mM |
| BSL,SM | Sarcolemmal membrane buffer site concentration (sub-membrane) | 0.122 mM |
| KSL | Sarcolemmal membrane buffer site affinity | 0.0087 mM |
| Bcmdn | Calmodulin buffer concentration | 0.05 mM |
| Kcmdn | Calmodulin buffer affinity | 2.38 × 10-3 mM |
| vRyR | Open RyR Ca2+ transport rate | 0.92 ms-1 |
| PCaL | LCC permeability | 9.13 × 10-13 cm μF s-1 |
| τNSR-JSR | NSR-JSR Ca2+ diffusion time constant | 9 ms |
| τSS-SM | SS-SM Ca2+ diffusion time constant | 0.02 ms |
| τSM-Cyto | SM-Cyto Ca2+ diffusion time constant | 1 ms |
| τLong | Longitudinal Ca2+ diffusion time constant | 4 ms |
| τTrans | Transverse Ca2+ diffusion time constant | 2 ms |