**Figure 6-source data 1**

|  |  |  |  |
| --- | --- | --- | --- |
|  | -PDBu | +PDBu | p-value |
|  | 1.70 ± 0.36·10-3 s-1 (n = 19) | 3.40 ± 0.76·10-3 s-1 (n = 19) | 9.9·10-4 (Paired t-test) |
|  | 1.77 ± 0.50·10-1 s-1 (n = 20) | 2.49 ± 0.69·10-1 s-1 (n = 20) | 1.2·10-2 (Sign test) |
|  | 5.31 ± 0.84·10-1 s-1 (n = 18) | 6.81 ± 1.11·10-1 s-1 (n = 18) | 3.0·10-2 (Paired t-test) |
|  | 1.91 ± 0.18 s-1 (n = 22) | 2.29 ± 0.20 s-1 (n = 22) | 1.5·10-2 (Paired t-test) |
|  | 2.29 ± 0.13 s-1 (n = 36) | 3.00 ± 0.17 s-1 (n = 36) | 4.7·10-6 (Paired t-test) |

**Parameter values Figure 6B**

|  |  |  |  |
| --- | --- | --- | --- |
|  | -PDBu | +PDBu | p-value |
|  | 0.0 ± 0.2 RT | -0.7 ± 0.3 RT | As in figure B |
|  | -4.6 ± 0.3 RT | -5.0 ± 0.3 RT | As in figure B |
|  | -5.7 ± 0.2 RT | -6.0 ± 0.2 RT | As in figure B |
|  | -7.0 ± 0.1 RT | -7.2 ± 0.1 RT | As in figure B |
|  | -7.2 ± 0.1 RT | -7.5 ± 0.1 RT | As in figure B |

**Parameter values Figure 6C**

|  |  |  |
| --- | --- | --- |
|  | Diff. in | Bootstrapped 95%CI |
|  | 1.70·10-3 s-1 | [1.1, 2.6]·10-3 s-1 |
|  | 7.21·10-2 s-1 | [-0.17, 1.70]·10-1 s-1 |
|  | 1.49·10-1 s-1 | [0.32, 2.71]·10-1 s-1 |
|  | 3.83·10-1 s-1 | [0.88, 6.41]·10-1 s-1 |
|  | 7.10·10-1 s-1 | [4.59, 9.66]·10-1 s-1 |

**Parameter values Figure 6D**

|  |  |
| --- | --- |
|  | Diff. in |
|  | -0.69 RT |
|  | -0.34 RT |
|  | -0.25 RT |
|  | -0.18 RT |
|  | -0.27 RT |

**Parameter values Figure 6E**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Parameter | Mean | Std | 95% CI | Unit | Mean (± SEM) (fig 7) |
|  | 1.7·10-3 | 0.4·10-3 | [1.1, 2.5]·10-3 | 1/s | 1.70 ± 0.36·10-3 1/s  (n=19) |
|  | 1.78·10-1 | 0.48·10-1 | [0.98, 2.86]·10-1 | 1/s | 1.77 ± 0.50·10-1 1/s  (n=20) |
|  | 5.31·10-1 | 0.82·10-1 | [3.80, 7.04]·10-1 | 1/s | 5.31 ± 0.84·10-1 1/s  (n=18) |
|  | 1.90 | 0.18 | [1.56, 2.26] | 1/s | 1.91 ± 0.18 1/s  (n=22) |
|  | 2.30 | 0.12 | [2.06, 2.54] | 1/s | 2.29 ± 0.13 1/s  (n=36) |
|  |  |  |  |  |  |
|  | 3.4·10-3 | 0.7·10-3 | [2.3, 5.1]·10-3 | 1/s | 3.40 ± 0.76·10-3 1/s  (n=19) |
|  | 2.50·10-1 | 0.69·10-1 | [1.41, 3.99]·10-1 | 1/s | 2.49 ± 0.69·10-1 1/s  (n=20) |
|  | 6.82·10-1 | 1.07·10-1 | [4.86, 9.03]·10-1 | 1/s | 6.81 ± 1.11·10-1 1/s  (n=18) |
|  | 2.29 | 0.19 | [1.92, 2.68] | 1/s | 2.29 ± 0.20 1/s  (n=22) |
|  | 3.01 | 0.17 | [2.68, 3.33] | 1/s | 3.00 ± 0.17 1/s  (n=36) |
|  |  |  |  |  |  |
|  | 1.7·10-3 | 0.4·10-3 | [1.1, 2.6]·10-3 | 1/s | 1.70·10-3 1/s (n=19) |
|  | 0.73·10-1 | 0.48·10-1 | [-0.17, 1.70]·10-1 | 1/s | 7.21·10-2 1/s  (n=20) |
|  | 1.49·10-1 | 0.61·10-1 | [0.32, 2.71]·10-1 | 1/s | 1.49·10-1 1/s  (n=18) |
|  | 3.82·10-1 | 0.14 | [0.88, 6.41]·10-1 | 1/s | 3.83·10-1 1/s  (n=22) |
|  | 7.09·10-1 | 0.13 | [4.59, 9.66]·10-1 | 1/s | 7.10·10-1 1/s  (n=36) |

**Parameter values bootstrap analysis Figure 6**

|  |  |  |  |
| --- | --- | --- | --- |
|  | -PDBu | +PDBu | p-value |
|  | 140 ± 17 pA (n = 36) | 152 ± 20 pA (n = 36) | > 0.05 (Paired t-test) |

**Parameter values Figure 6-figure supplement 3A**

|  |  |  |  |
| --- | --- | --- | --- |
|  | -PDBu | +PDBu | p-value |
|  | 8.5 ± 0.6·10-2 s-1 (n = 36) | 8.5 ± 0.8·10-2 s-1 (n = 36) | > 0.05 (Paired t-test) |

**Parameter values Figure 6-figure supplement 3B**

|  |  |  |  |
| --- | --- | --- | --- |
|  | -PDBu | +PDBu | p-value |
|  | 1.65 ± 0.14 nC (n = 36) | 1.69 ± 0.13 nC (n = 36) | > 0.05 (Paired t-test) |

**Parameter values Figure 6-figure supplement 3C**

|  |  |
| --- | --- |
| Model parameter | Value (unit) |
|  | 0.14 (s-1) |
|  | 0.09 (s-1) |
|  | 1.0 (nC) |
|  | 1.6 (nC) |
|  |  |
| Sucrose function parameter |  |
|  | 0.03-10 (s-1) |
|  | 1.5 (s) |
|  | 0.27 (s) |
| Duration of sucrose pulse | 7 (s) |

**Parameter values Figure 6-figure supplement 3D**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Parameter | Mean | Std | 95% CI | Unit | Mean ± SEM (fig 7S3) |
|  | 140 | 16 | [110, 174] | pA | 140 ± 17 pA  (n=36) |
|  | 152 | 19 | [115, 192] | pA | 152 ± 20 pA  (n=36) |
|  |  |  |  |  |  |
|  | 8.5·10-2 | 0.6·10-2 | [7.4, 9.8]·10-2 | 1/s | 8.5 ± 0.6·10-2 1/s  (n=36) |
|  | 8.5·10-2 | 0.8·10-2 | [7.0, 10.0]·10-2 | 1/s | 8.5 ± 0.8·10-2 1/s  (n=36) |
|  |  |  |  |  |  |
|  | 1647.3 | 141.2 | [1389.6, 1938.7] | pC | 1.65 ± 0.14 nC  (n=36) |
|  | 1687.0 | 126.5 | [1446.5, 1938.6] | pC | 1.69 ± 0.13 nC  (n=36) |

**Parameter values bootstrap analysis Figure 6-figure supplement 3**