***Supplementary File 2a—Frequency and magnitude of open channel current fluctuations in wild type and DN receptors***

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | $$S\_{s}$$(A2/Hz) | 95% CI(A2/Hz) | $f\_{cs}$ (Hz) | 95% CI(Hz) | $$S\_{f}$$(A2/Hz) | 95% CI(A2/Hz) | $f\_{cf}$ (Hz) | 95% CI(Hz) | $$S\_{c}$$(A2/Hz) | 95% CI(A2/Hz) | SD/A | SD |
| WT |  |  |  |  | 6.17E-29 | 5.75E-29 to 6.76E-29 | 1935 | 1732 to 2138 | 1.74E-29 | 1.62E-29 to 1.82E-29 | 0.041 | 0.0043 |
| β DN | 2.24E-28 | 1.86E-28 to2.69E-28 | 416.2 | 289.8 to542.7 | 1.05E-28 | 9.12E-29 to1.20E-28 | 4173 | 3239 to5108 | 5.13E-29 | 4.47E-29 to5.89E-29 | 0.096 | 0.0105 |
| β + δ DN | 1.58E-27 | 1.26E-27 to2.04E-27 | 113.5 | 86.54 to140.4 | 4.27E-28 | 3.98E-28 to4.57E-28 | 2842 | 2612 to3072 | 1.12E-28 | 1.05E-28 to1.17E-28 | 0.159 | 0.0173 |

$S\_{s}$, $S\_{f}$, $f\_{cs}$, $f\_{cf}$, $S\_{c}$ determined from least squares fit of Eq. 1 in main text to open channel current power spectra. SD/A indicates open channel current standard deviation relative to channel amplitude. Spread is shown as 95% confidence or standard deviation as indicated in table. Fits obtained from the average of spectrum of at least 50 open channel segments with baseline spectra subtracted.

***Supplementary File 2b—Power spectra and open channel current relaxations of the β-DN + δ-DN receptor***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | $$f\_{cs}$$ (Hz) | $$f\_{cf}$$ (Hz) | $A\_{αs}$ O→C | $$A\_{αf}$$ O→C | $A\_{βs}$ C→O | $A\_{βf}$ C→O | $S\_{s}$  (A2/Hz) | $S\_{f}$  (A2/Hz) | $$S\_{c}$$(A2/Hz) |
| Value | 118.34 | 2852.9 | -0.0053 | -0.0401 | 0.0278 | 0.0728 | 1.55E-27 | 4.25E-28 | 1.11E-28 |
| 95% CI | 125.61 to111.07 | 2790.9 to2914.8  | -0.0083 to-0.0022 | -0.0545 to-0.0257 | 0.0247 to0.031 | 0.0583 to0.0872 | 1.46E-27 to1.64E-27 | 4.18E-28 to4.318E-28 | 1.09E-28 to1.13E-28 |

Parameters obtained from simultaneous least squares fit of Eq. 1 from main text, Eq. A7, and Eq. A8 to the power spectra and open channel current relaxations for the β-DN + δ-DN receptor.