**Figure 4 - source data 5. Photobleaching data for monomeric control CLC-ec1 WT-Cy5 in 20% DL, 80% PO, 2:1 PE/PG lipids.** 𝜒\* is the reactive molar ratio of protein subunits and lipids, based on the observed mole fraction calculated from the protein and lipid quantification assays, and assuming the reaction occurs between oriented species in the membrane, 𝜒\* = 𝜒/2. *Fdimer* is calculated based on the WW-Cy5 and RCLC-Cy5 in 20% DL. Data are represented as mean ± standard error. Sample numbers, n, are listed separately for (mole fraction quantification, photobleaching analysis).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **density (μg/mg)** | **𝜒\* (subunits/lipid)** | **PCy5** | **incubation time (d)** | **P1** | **P2** | **P3+** | **Fdimer** | **n** |
| 0.0001 | (1.42 ± 0.17) x 10-9 | 0.69 ± 0.00 | 3.0 ± 0.0 | 0.83 ± 0.01 | 0.15 ± 0.01 | 0.02 ± 0.01 | 0.00 ± 0.00 | (2,2) |
| 0.001 | (5.23 ± 0.61) x 10-9 | 0.68 ± 0.01 | 4.5 ± 1.0 | 0.77 ± 0.00 | 0.18 ± 0.02 | 0.05 ± 0.02 | 0.07 ± 0.06 | (2,4) |
| 0.01 | (3.11 ± 0.77) x 10-8 | 0.68 ± 0.01 | 4.5 ± 1.0 | 0.74 ± 0.02 | 0.22 ± 0.02 | 0.04 ± 0.01 | 0.13 ± 0.05 | (3,4) |
| 0.1 | (4.21 ± 0.44) x 10-7 | 0.68 ± 0.01 | 4.5 ± 1.0 | 0.63 ± 0.03 | 0.28 ± 0.02 | 0.09 ± 0.02 | 0.11 ± 0.05 | (3,4) |
| 0.5 | (1.87 ± 0.30) x 10-6 | 0.69 ± 0.00 | 3.0 ± 0.0 | 0.33 ± 0.02 | 0.28 ± 0.01 | 0.39 ± 0.02 | 0.40 ± 0.08 | (2,2) |