|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Interdomain angles** | **EC1–EC2 (°)** | **EC2–EC3 (°)** | **EC3–EC4 (°)** | **EC4–EC5 (°)** |
| **4EC1­–4** | 12.0 | 7.0 | 14.0 |  |
| **7EC1–5chain A** | 14.9 | 6.3 | 11.4 | 21.9 |
| **7EC1–5chain B** | 14.2 | 8.4 | 11.5 | 22.5 |
| ***Average -Pcdh*** | *13.7 ± 1.5* | *7.2 ± 1.1* | *12.3 ± 1.5* | *22.2 ± 0.4* |
| **6EC1­–4 chain A** | 13.3 | 11.0 | 8.6 |  |
| **6EC1­–4 chain B** | 13.5 | 10.4 | 6.3 |  |
| **8EC1­–4 chain A** | 6.0 | 10.1 | 18.2 |  |
| **8EC1­–4 chain B** | 5.0 | 9.1 | 10.4 |  |
| **8EC1­–4 chain C** | 4.7 | 7.1 | 14.9 |  |
| **8EC1­–4 chain D** | 2.3 | 8.8 | 15.1 |  |
| **8EC1­–4 chain E** | 7.0 | 11.6 | 15.4 |  |
| **8EC1­–4 chain F** | 4.6 | 13.9 | 13.5 |  |
| ***Average -Pcdh*** | *7.1 ± 4.1* | *10.3 ± 2.0* | *12.8 ± 4.0* |  |
| **A1EC1­–4 chain A** | 12.3 | 18.8 | 24.0 |  |
| **A1EC1­–4 chain B** | 4.9 | 17.0 | 25.0 |  |
| ***Average EC1–4 engaged A-Pcdh*** | *8.6 ± 5.2* | *17.9 ± 1.3* | *24.5 ± 0.7* |  |
| **A1EC1­–4 chain C** | 8.4 | 21.6 | 16.8 |  |
| **A1EC1­–4 chain D** | 5.8 | 22.3 | 7.9 |  |
| **A8EC1­–4** | 7.3 | 26.3 | 9.2 |  |
| **A9EC1­–5** | 10.8 | 21.9 | 8.1 | 17.7 |
| ***Average not fully engaged A-Pcdh*** | *8.1 ± 2.1* | *23.0 ± 2.2* | *10.5 ± 4.2* |  |
| **B2EC1­–5 chain A** | 21.2 | 12.2 | 17.2 | 15.4 |
| **B2EC1­–5 chain B** | 22.5 | 11.7 | 17.1 | 16.9 |
| **B3EC1­–4** | 9.7 | 13.3 | 17.5 |  |
| **B7EC1­–4 xtal 1 chain A** | 12.0 | 6.1 | 15.2 |  |
| **B7EC1­–4 xtal 1 chain B** | 11.4 | 10.0 | 15.7 |  |
| **B7EC1­–4 xtal 2 chain A** | 4.8 | 6.0 | 10.2 |  |
| **B7EC1­–4 xtal 2 chain B** | 14.4 | 8.4 | 16.1 |  |
| ***Average B-Pcdh*** | *13.7 ± 6.3* | *9.7 ± 2.9* | *15.6 ± 2.5* | *16.2 ± 1.1* |

#### Figure 1—source data 6. Pcdh protomer interdomain angles

Interdomain angles between consecutive EC domains given as the deviation from 180°, were calculated using UCSF chimera. The 4EC1–4, 7EC1–5, 6EC1–4, 8EC1–4, and B3EC1–4 structures correspond to PDBs: 5DZW, 5DZV, 5DZX, 5DZY, and 5K8R.