**SUPPLEMENTARY FILE 1**

**Supplementary Table 1** Radial and longitudinal position of DAP and sDAP proteins

|  |  |  |
| --- | --- | --- |
| Protein | Diameter (mean ± SD, nm) | Longitudinal position relative to SCLT1 (mean ± SD, nm) |
| FBF1 | 429 ± 23 | (12 MCs) | 30 ± 11 | (10 MCs) |
| CEP164 | 381 ± 70; 475 ± 39 | (15 MCs) | -35 ± 7; 26 ± 9 | (6 MCs) |
| SCLT1 | 419 ± 36 | (8 MCs) | 0 ± 8 | (6 MCs) |
| CEP89 | 352 ± 45 | (8 MCs) | -106 ± 28; 27 ± 7 | (12 MCs) |
| CEP83 | 315 ± 20 | (13 MCs) | -59 ± 0 | - |
| ODF2 | 249 ± 52 | (8 MCs) | -95 ± 26; -198 ± 40 | (8 MCs) |
| CEP128 | 305.8 ± 66 | (10 MCs) | -149 ± 41 | (10 MCs) |
| Centriolin | 360 ± 46 | (9 MCs) | -127 ± 64 | (7 MCs) |
| CEP170 | 527 ± 75 | (7 MCs) | -111 ± 46 | (7 MCs) |
| Ninein | 512 ± 57 | (9 MCs) | -122 ± 56 | (7 MCs) |
| CCDC68 | 371 ± 93 | (7 MCs) | - | - |

MC: mother centriole

**Supplementary table 2** List of primary antibodies used in immunofluorescent staining

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name of Antibody | Host | Company | Cat # | Dilution | Immunogen (sequence) | Reference |
| FBF1 | rabbit IgG | Proteintech, Rosemont, IL, USA | 11531-1-AP | 1/200 | hFBF1 (20-347 aa) | Wei, Xu et al. 2013 |
| SCLT1 | rat IgG | Tanos et al. *Genes & development* (2013) | - | 1/250 | - | Tanos, Yang et al. 2013 |
| CEP89 | rat IgG | Tanos et al. *Genes & development* (2013) | - | 1/500 | - | Tanos, Yang et al. 2013 |
| ODF2 or ODF2-N | rabbit IgG | Sigma-Aldrich | HPA001874 | 1/200 | hODF2 (39-200 aa) | Asante, Maccarthy-Morrogh et al. 2013 |
| ODF2-C | rabbit IgG | Abcam | ab43840 | 1/200 | hODF2 (800aa to C terminus) | Kashihara H et al, 2019 |
| CEP128 | rabbit IgG | Abcam | ab118797 | 1/200 | hCEP128 (1044-1094 aa) | Gregory Mazo et al. 2017 |
| CENTRIOLIN | mouse IgG | Santa Cruz | sc-365521 | 1/200 | hCentriolin (2026-2325 aa) | Gregory Mazo et al. 2017 |
| NINEIN | rabbit IgG | Bethyl | A301-504 | 1/1000 | hNIN (1850-1900 aa) | Gregory Mazo et al. 2017 |
| NINEIN | mouse IgG | Santa Cruz | sc-376420 | 1/500 | hNIN (289-476 aa) |  Ou,Y.Y.,etal.2002 |
| CEP170 | rabbit IgG | Abcam | ab72505 | 1/400 | hCEP170 (1534-1584 aa) | Shumilov A et al. 2017 |
| CCDC68 | rabbit IgG | Proteintech | 26301-1-AP | 1/400 | CCDC68 (1-335 aa) | Huang et al. 2017 |
| C-NAP1 | mouse IgG | Santa Cruz | sc-390540 | 1/200 | hC-NAP1 (107-286 aa) | Hsu, W.H., et al. 2018 |
| g-tubulin | mouse IgG | Sigma-Aldrich | T6557 | 1/500 | N-terminal amino acids of γ-tubulin | Joshi HC, et al. 1992 |
| a-tubulin | mouse IgG | Santa Cruz | sc-32293 | 1/500 | native chick brain microtubules | Grundmann, M., et al. 2018. |
| Centrin  | mouse IgG | Millipore | 04-1624 | 1/400 | C-terminus of Chlamydomonas Centrin | Kim, S, et. al, 2015 |