

Arrangement of cyclophilins in the heat-map

| | PP1A | PP1B | PP1C | PP1F | PP1L3A | PP1L1 | PP1D | PP1W1 | PP1L2 | RANBP | PP1L4 | PP1G | NKTR | PP1E | PP1L4 | CWC27 | PP1L6 |
|----|------|------|------|------|--------|-------|------|-------|-------|-------|-------|------|------|------|-------|-------|-------|
| 1 | V | V | V | G | - | - | S | E! | - | T! | V | Q | D* | S | - | I | K |
| 2 | N! | T! | T | N! | - | - | N! | G! | - | N* | N* | R* | R* | N* | - | Q! | H* |
| 3 | P! | V | A | P! | - | - | P! | P! | - | P* | P* | P | P* | P* | - | E* | D |
| 4 | T | K! | K | L | - | - | R! | K! | V! | V! | V! | R! | Q* | Q* | - | P* | F |
| 5 | V! | V* | V* | V! | - | - | V | R | K | V* | V* | C | C* | V* | - | P | V* |
| 6 | F! | Y | F* | Y | - | - | F | V! | K | F! | F* | F! | H | Y* | - | T! | F! |
| 7 | F | F* | F* | L | - | P | F | S! | K! | F | F | F | F* | M! | - | N | L! |
| 8 | D! | D* | D* | D! | M | P | D! | D! | G | D | D | D* | D! | D* | - | G | D! |
| 9 | I! | L | V! | V | S | N | V | S! | Y* | V! | V | I! | I! | I* | M | K* | I! |
| 10 | A | R | R | D | V* | V! | D | A* | V | C | S | A | E* | K! | A | V* | C |
| 11 | V | I! | I | A! | T* | Y | I | I! | R! | A | I | I! | I! | I | V | L! | I! |
| 12 | D | G* | G | N | L | L | G | I! | L | D | G! | N! | N* | G* | L | L! | D |
| 13 | G | D | D! | G | H | E | G | H* | H | G | G | N | R* | N! | L | K! | S |
| 14 | E | E! | K | K | T* | T* | E | T* | T* | E | Q | Q | E* | K! | E! | T* | S |
| 15 | P! | D | D! | P | D! | S | R | S! | N! | P | E | P! | P* | P | T | T! | P |
| 16 | L! | V | V | L | V | M! | V | M | K | L | V | A | V* | A! | T! | A! | I |
| 17 | G! | G* | G* | G! | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | L | G* | G* |
| 18 | R | R* | R* | R! | - | I | R* | D* | D | R | R | R* | R* | R* | G | D | R! |
| 19 | V | V! | I* | V | D! | I | I | I* | L! | I | M | V! | I* | I! | D! | I* | L |
| 20 | S! | I! | V | V | I | V | V! | H | N | T | K | V! | M! | Q | V | D* | I |
| 21 | F! | F | I* | L | K* | L | L | T | L | M! | I | F! | F* | M | V | I! | F! |
| 22 | E! | G* | G* | E | I | E* | E* | K | E* | E* | E* | E! | Q* | L! | I | E* | E |
| 23 | L* | L | L* | L* | E* | L | L* | L* | L* | L* | L* | L* | L* | L* | D | L* | L* |
| 24 | F* | F | F* | K | V | Y* | F! | F* | H | F* | F | F* | F* | R* | L | W* | Y! |
| 25 | A | G* | G* | A* | F | W | A | P | C | S! | A! | S | S* | S! | Y | S! | C |
| 26 | D | K | K! | D | C* | K | D* | V! | D | N! | D* | D* | D* | D* | T | K | D |
| 27 | K! | T | V* | V* | E! | H* | I | E* | L | I* | V | V | I! | V! | E | E* | V |
| 28 | V! | V* | V* | V* | R | A | V! | C* | T | V* | V | C* | C* | V* | E | A! | C |
| 29 | P* | P* | P* | P* | T | P* | P* | P* | P* | P* | P* | P* | P* | P* | R! | P* | P* |
| 30 | K* | K* | K! | K* | P | K | K | K* | K | R | K! | K! | K* | M! | P | K | K! |
| 31 | T | T* | T* | T* | K! | T* | T* | T* | T! | T* | T | T* | T* | T* | R | A* | T* |
| 32 | A | V! | V* | A* | T | C* | A* | V* | C | A* | A! | C | C! | A! | A | C* | C! |
| 33 | E* | D | E | E* | C! | K | E* | E* | E | E* | E* | E! | K* | E* | C | R* | K |
| 34 | N* | N* | N* | N* | E | N* | N* | N* | N* | N* | N* | N* | N* | N* | L | N* | N* |
| 35 | F* | F* | F* | F* | M* | F* | F* | F* | F* | F* | F* | F* | F* | F* | N* | F* | F* |
| 36 | R | V | V! | R* | E | A | R* | C | I | R* | R* | R! | L* | R* | F* | I! | Q |
| 37 | A | A | A | A* | S! | E | A | V* | R | A* | Q | C! | C* | C! | L* | Q* | V |

| | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 38 | L* | L* | L* | L* | R | L* | L* | H* | L! | L* | F! | L* | L* | L* | K* | L* | L* |
| 39 | S! | A* | A* | C* | C* | A | C* | S* | C | C* | C* | C* | C* | C* | L* | C* | C* |
| 40 | T* | T! | T* | T* | V* | R | T* | R | K | T* | T* | T! | S! | T* | C* | L | T |
| 41 | G* | G! | G* | G* | P* | R | G* | N* | K | G* | G* | G* | G* | H* | K* | E* | G* |
| 42 | E* | E! | E* | E* | Q* | G | E* | G* | H | E* | E* | E* | E* | E* | I | A | K |
| 43 | K | K! | K! | K! | A | - | K* | - | - | K | F | K | K | K* | K* | - | A |
| 44 | G* | G | G* | G* | G* | - | G* | - | - | G* | R! | G* | G* | G* | - | - | G |
| 45 | - | - | - | - | - | - | I | - | - | - | K! | T | L | - | - | - | F |
| 46 | - | - | - | - | - | - | G* | - | - | - | - | G* | G* | - | - | - | S |
| 47 | - | - | - | - | - | - | H | - | - | - | - | K* | K* | - | - | - | Q |
| 48 | - | - | - | - | - | - | T | - | - | - | - | S | T! | - | - | - | - |
| 49 | - | - | - | - | - | - | T | - | - | - | D | T* | T* | - | - | - | R |
| 50 | - | - | - | - | - | - | G* | - | - | - | G | Q | G | - | - | - | G! |
| 51 | - | - | - | - | - | - | K! | - | - | - | V | K* | K* | - | - | - | I |
| 52 | - | - | - | - | V | - | P* | - | - | - | P* | P! | K* | - | - | - | R |
| 53 | F* | F | Y | F* | Q | - | L* | - | - | F* | I | L* | L* | F! | - | - | L* |
| 54 | G | G* | G* | G* | W! | Y* | H | Y* | Y* | G* | G* | H! | C* | G* | Y | Y* | H |
| 55 | Y* | Y! | Y* | Y* | R* | Y* | F! | Y* | Y* | F! | Y! | Y* | Y* | F! | Y* | Y* | Y* |
| 56 | K* | K! | K | K* | D | N | K* | N* | D | K! | K* | K* | K* | K! | N* | D | K |
| 57 | G | N | G* | G* | L! | G | G* | G | G | N! | G! | S | G* | G* | Y | N | N |
| 58 | S* | S* | S | S* | G! | T | C | H* | T | S* | S | C | S! | S* | C | T* | S |
| 59 | C! | K! | K | T! | S | K | P | T | I | I | T | L | T* | S! | L! | I! | I |
| 60 | F* | F* | F* | F* | L | F* | F* | F* | F* | F* | F* | F* | F* | F* | I | F* | F |
| 61 | H* | H* | H* | H* | Q | H* | H* | H* | H* | H* | H* | H* | H* | H* | H! | H* | H* |
| 62 | R* | R* | R* | R* | P* | R* | R* | R* | R* | R* | R* | R* | R* | R* | N | R* | R* |
| 63 | I! | V* | V* | V* | P* | I! | I! | I! | S | V! | V | V | V* | I | V! | V! | I |
| 64 | I* | I* | I* | I* | P | I* | I* | I* | I* | I! | I* | V* | V* | I* | Q! | V | V* |
| 65 | P* | K | K* | P* | P | K | K | K* | R! | P! | K* | K* | K* | P* | R | P! | Q |
| 66 | G | D! | D* | S | G* | D | K | G | N! | D! | D* | D! | N* | Q! | D | G! | N! |
| 67 | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F | F* | G |
| 68 | M | M* | M* | M* | K! | M! | M* | M* | V | V | M* | M* | M* | M* | I! | I* | W* |
| 69 | C* | I* | I* | C* | Q! | I | I! | I* | I! | C* | I! | V! | I* | C* | I | V! | I |
| 70 | Q* | Q* | Q* | Q* | V* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* |
| 71 | G* | G* | G* | A! | F* | G! | G* | T* | G* | G* | G! | G* | G* | G! | T! | G* | G* |
| 72 | G* | G* | G* | G* | C! | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* |
| 73 | D* | D* | D* | D* | L* | D* | D* | D* | D* | D* | D* | D* | D* | D* | D* | D* | D* |
| 74 | F | F* | I! | F* | S* | P* | F! | P* | P* | I* | F | F* | F* | F* | P* | P* | I* |
| 75 | T* | T* | T* | T* | L* | T* | S! | T | T | T* | V | S | S! | T* | T | T! | V |
| 76 | R | R! | T | N* | P | G* | N | G* | G | K | N | E! | E* | N* | G! | G* | Y |
| 77 | H | G* | G | H* | R | - | Q | - | - | H | G! | G* | G* | H* | - | - | G |

[illegible]

| | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 118 | A* | A | A! | A* | N! | A | A! | A | S | Q | S | R* | R* | S* | N | A! | K! |
| 119 | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G | G* | G* |
| 120 | P* | K! | P* | P* | P* | P | R | S | P | Q! | P | K | K* | P! | S | S | R |
| 121 | N* | D* | D* | N* | N | D! | N | N! | N! | N! | S | D! | H! | N* | D | H! | H* |
| 122 | T* | T* | T* | T* | T! | T | T* | T* | S! | T* | T | T* | T* | T | Q | D* | S! |
| 123 | N* | N* | N* | N* | N* | N* | N* | N* | N* | N* | N* | N* | N* | N* | H | N* | N* |
| 124 | G | G* | G* | G* | G! | G* | G* | G* | R | N | G* | G* | G* | G* | G | G | G! |
| 125 | S* | S* | S* | S* | S* | S* | S* | S* | S* | S* | C* | S* | S* | S* | S* | S* | S* |
| 126 | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* | Q* |
| 127 | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* |
| 128 | F* | F* | F* | F* | F* | F* | F* | F* | F* | V | F* | F* | F* | F* | L | F* | Y* |
| 129 | I* | I* | I* | I* | I! | V | I | I! | I | I* | I! | I* | I* | L | I! | F* | I* |
| 130 | C* | T* | T | C* | T | T* | T* | T* | T! | T* | T* | T* | T* | T! | T* | T* | T* |
| 131 | T | T* | L | T* | Y* | L* | T* | V* | F! | L* | C* | T* | T* | C | T | L | L |
| 132 | A | V! | T! | I | G | A! | V! | V | R! | K* | S | K | K* | D! | G | G! | Q* |
| 133 | K* | K | K | K* | K | P* | P! | P* | S | K* | K! | P! | P! | K! | E | R | A |
| 134 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | N | - | - |
| 135 | T | T* | P! | T* | Q | T! | T* | T* | C | A* | C | T | A* | T* | L! | A! | T |
| 136 | E | A | T | D | P | Q | P! | P* | A | E* | D | P* | P* | D | D | D! | P! |
| 137 | W | W* | W* | W* | H! | W | H* | W* | Y | H! | W! | H* | H* | W* | Y! | E* | Y! |
| 138 | L* | L* | L* | L* | L* | L* | L* | L* | L* | L* | L* | L* | L* | L* | L* | L* | L! |
| 139 | D* | D* | D* | D* | D | D* | D* | D* | D! | D* | D* | D* | D* | D* | D | N! | D* |
| 140 | G* | G* | G* | G | M | G! | G | N* | K | F | G | G | G* | G | G | N | R |
| 141 | K* | K! | K! | K! | K | K* | K* | K* | K* | K* | K* | H | V* | K* | V | K* | K! |
| 142 | H | H* | H* | H* | Y* | H* | H* | H* | H* | H* | H* | H* | H* | H* | H* | H | F! |
| 143 | V* | V* | V* | V* | T* | T! | V* | T! | T | V* | V* | V* | V* | V* | T! | T* | V* |
| 144 | V | V* | V* | V* | V | I* | V* | V* | I! | V! | V* | V* | V* | V* | V | I | A* |
| 145 | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* | F* |
| 146 | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* | G* |
| 147 | K | K! | K! | H | K! | R* | Q | R* | R | F | K | Q | L* | E | E! | K* | Q! |
| 148 | V* | V! | V! | V* | V! | V! | V* | V! | V! | V* | I! | V* | V* | V! | V! | V! | L |
| 149 | K | L | I | K | I* | C | I | T! | V | K! | I | I | I* | T | T | T! | I |
| 150 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | G* | - |
| 151 | E | E! | D! | E | D | Q | K! | K* | G! | D | D | S* | S* | E! | E* | D! | E |
| 152 | G | G* | G* | G* | G* | G* | G* | G* | G | G* | G | G* | G* | G* | G* | T* | G |
| 153 | M! | M! | M! | M | L | I | I | M* | F | M* | L | Q! | F* | L | M | V | T |
| 154 | N! | E! | T! | D | E! | G | G! | E* | D | D | L* | E | E* | D* | D! | Y | E |
| 155 | I | V | V | V* | T | M | V! | V | V | T | V | V | V* | V* | I | N* | V! |
| 156 | V | V* | V* | V | L* | V | A | V | L* | V* | M | V! | I* | L! | I | M! | L* |
| 157 | E! | R | H | K | D | N | R! | Q* | T | K! | R* | R | E! | R! | K | L | K |

| | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 158 | A! | K | S | K | E | R | I | R! | A | K! | K* | E | Q! | Q | K | R! | Q |
| 159 | M! | V | I | I! | L! | V | L | I* | M | I! | I | I! | I* | I! | I | L* | L! |
| 160 | E* | E* | E* | E* | E* | G | E* | S | E* | E! | E* | E* | E* | E* | N* | S | E |
| 161 | R | S | L | S! | K* | M | N | N! | N | S! | N | N | N! | A | E! | E | L |
| 162 | F! | T! | Q! | F! | L | V | V | V! | V | F! | V! | Q! | L* | Q | T | V | V |
| 163 | G* | K | A | G* | P! | E | E | K* | E | G* | P | K | K* | G | F | D | P |
| 164 | S | T | T | S* | V! | T | V | V! | S | S | T! | T | T* | S | V | I | T |
| 165 | - | D | D | - | N | N | - | N | D! | - | G! | D* | D* | - | D* | D! | - |
| 166 | R! | S | G | K | E | S | K | P* | P | P! | P! | A | A | K | K | D | Q |
| 167 | N! | R | H | S! | K! | Q | G | K* | K | K | N! | A | A* | D | D | D | N |
| 168 | - | - | - | - | T | - | - | T* | T | - | - | - | - | - | - | - | - |
| 169 | G | D* | D* | G* | Y | D* | E | D* | D! | G* | N | S* | S* | G | F | E! | E |
| 170 | K | K! | R! | R! | R! | R | K | K* | R! | S | K | K! | R* | K | V | R* | R |
| 171 | T | P* | P* | T! | P* | P* | P* | P* | P* | V! | P* | P* | P* | P! | P* | P* | P |
| 172 | S | L | L | S | L! | V | A | Y* | K | C | K | F | Y* | K | Y! | H | I |
| 173 | K* | K | T | K | N | D | K | E | E | R | L | A! | A* | Q! | Q! | N | H |
| 174 | K | D! | N! | K! | D | D | L | D* | E | R! | P* | E! | D* | K | D | P | M |
| 175 | I | V | C | I | V | V! | C | V! | I! | I! | V* | V | V* | V! | I | H! | C! |
| 176 | T | I | S | V | H | K | V | S! | R | T | V* | R! | R* | I | R* | K! | R |
| 177 | I | I | I | I | I! | I | I | I* | I | I* | I! | I! | V* | I! | I* | I* | I! |
| 178 | A | A | I | T! | K | I | A | I* | D | T! | S | L | I! | A | N | K | T |
| 179 | D | D! | N! | D | D | K | E | N | A | E | Q | S | D* | D | H* | S | D |
| 180 | C | C! | S! | C* | I | A | - | I | T | C* | C | C* | C* | C | T* | C | S |
| 181 | G | G | G | G* | T | Y | - | T | T | G* | G | G* | G* | G* | V! | E | G |
| 182 | Q! | K | K | Q! | I | P | - | V! | V! | Q* | E* | E! | V! | E* | I! | V | D |
| 183 | L | I | I | L | H* | S | - | K* | F! | I! | M* | L* | L | Y | L* | L* | P |
| 184 | E | E | D | S | A* | G | - | - | V! | - | - | - | A | V | D! | F | Y |