

TABLE S17

| Design Protocol | Ubiquitin Interface Residues | | | | | | | | | | | | | | | | | | | | | | | | Identical to Native | | |
|-----------------|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|-----|-----|
| | 306 | 307 | 308 | 309 | 310 | 311 | 334 | 336 | 340 | 342 | 344 | 345 | 346 | 347 | 348 | 349 | 362 | 364 | 365 | 366 | 368 | 370 | 371 | 372 | # | % | |
| NATIVE | K | T | L | T | G | K | E | I | Q | R | I | F | A | G | K | Q | Q | E | S | T | H | V | L | R | 24 | | |
| MULTI | + | P | + | + | + | R | W | H | E | + | + | Q | D | + | + | K | W | + | + | S | R | + | N | + | 12 | 50% | |
| SINGLE 1CMX | + | P | + | + | + | R | R | Q | R | Q | F | D | R | + | D | R | P | D | W | R | M | M | F | + | 5 | 21% | |
| 1FXT | H | S | M | R | + | P | W | K | G | + | + | W | G | R | P | K | A | N | L | E | W | + | W | + | 5 | 21% | |
| 1NBF | R | L | + | R | S | R | I | H | E | + | D | Q | R | + | + | D | + | I | S | R | S | I | + | 7 | 29% | | |
| 1S1Q | P | G | R | A | Q | H | K | K | P | + | + | W | P | + | W | A | W | M | + | E | S | N | P | G | 4 | 17% | |
| 1WR6 | Q | R | + | H | N | G | V | F | V | K | H | N | D | + | H | K | R | W | Y | V | W | I | W | K | 2 | 8% | |
| 1WRD | + | V | R | W | H | P | T | H | F | W | L | R | R | + | R | K | K | W | W | L | + | R | T | P | 3 | 13% | |
| 2D3G | + | N | I | R | S | G | G | L | E | + | + | S | H | + | H | G | M | I | V | K | G | + | Q | W | H | 4 | 17% |