Table S2. List of cell-penetrating peptides whose CP-response is an outlier.

| Peptide ID | Peptide Name | Reference | Details |
|------------|---------------------------------|-----------|--|
| 12 | Transportan | 17 | In reference 17, transportan showed higher cell-specificity for HeLa cells, resulting in a higher response for cellular influx in comparison with other results for transportan. |
| 34 | M918 | 32 | In the quantitative uptake assay, M918 showed a 7 times higher influx than penetratin. |
| 91 | P14LRR | 49 | P14LRR showed an about 20 times higher uptake than Tat 47-57, the positive control. |
| 93 | (P10LRR-Gly) ₂ -C5 | 50 | The dimeric cationic amphiphilic polyproline helices |
| 94 | (P10LRR-β-Ala) ₂ -C5 | 50 | showed an about 200 times higher uptake responses than |
| 95 | (P10LRR-ABUA) ₂ -C5 | 50 | the positive control Tat 47-57. |
| 97 | MAP(Aib) | 52 | The internal positive control MAP showed a much lower influx response in the tested A549 cells (<i>cfr.</i> cell-specificity) |
| 103 | FHV Coat (35-49) | 56 | FHV coat (35-49) showed a 21 times higher cellular uptake than the positive control Tat 48-60. |
| 104 | PasTat | 55 | PasTat has a 20 times higher uptake than the positive control Tat. |
| 124 | Kno (ref 63) | 63 | Kno has a 7 times higher uptake than the positive control penetratin. |
| 186 | Kno (ref 69) | 69 | Kno has a 10 times higher uptake than the positive control penetratin. |