Supplemental Table 1. Type-specific monoclonal antibodies were used to evaluate specificity of binding within a multi-spot well. values represent for type-specific spot. Results shown as mean signal over background for duplicates (Bold values) for two plate lots printed with different VLP lots for each type.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Plate Lot# | HPV type/mAb | HPV6 | HPV11 | HPV16 | HPV18 | HPV31 | HPV33 | HPV45 | HPV52 | HPV58 |
| 1 | HPV6\_M48 | **496** | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| 2 | **623** | 7 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | HPV11\_H3 | 14 | **966** | 1 | 2 | 4 | 1 | 1 | 1 | 1 |
| 2 | 1 | **507** | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| 1 | HPV16\_V5 | 1 | 1 | **1054** | 1 | 1 | 2 | 2 | 1 | 2 |
| 2 | 5 | 2 | **1738** | 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | HPV18\_J4 | 3 | 0 | 0 | **1526** | 1 | 1 | 1 | 1 | 1 |
| 2 | 4 | 7 | 1 | **1294** | 60 | 1 | 1 | 8 | 2 |
| 1 | HPV31\_A6 | 3 | 1 | 0 | 74 | **1859** | 1 | 0 | 35 | 1 |
| 2 | 6 | 8 | 1 | 1 | **2041** | 1 | 1 | 3 | 3 |
| 1 | HPV33\_J3 | 0 | 0 | 0 | 0 | 1 | **503** | 1 | 2 | 15 |
| 2 | 4 | 3 | 1 | 1 | 1 | **465** | 1 | 1 | 1 |
| 1 | HPV45\_N5 | 0 | 1 | 1 | 1 | 1 | 1 | **1233** | 1 | 1 |
| 2 | 5 | 2 | 5 | 1 | 1 | 3 | **742** | 2 | 3 |
| 1 | HPV52\_D11 | 1 | 0 | 1 | 9 | 2 | 1 | 1 | **1417** | 2 |
| 2 | 4 | 4 | 1 | 1 | 89 | 1 | 1 | **1660** | 3 |
| 1 | HPV58\_J3.6 | 0 | 1 | 1 | 1 | 2 | 1 | 3 | 20 | **3981** |
| 2 | 4 | 5 | 1 | 1 | 1 | 9 | 1 | 2 | **4011** |