

Supplemental Table 1: Selected vaccinia WR proteins spotted on microarray chip

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|--------------|--------------|--------------|--------------|
| WR001 (C23L) | WR061 (E5R) | WR118 (D13L) | WR152 (A29L) |
| WR008 (C19L) | WR064 (E8R) | WR122 (A3L) | WR156 (A33R) |
| WR010 (C10L) | WR070 (I1L) | WR123 (A4L) | WR157 (A34R) |
| WR026 (C2L) | WR072 (I3L) | WR128 (A9L) | WR159 (A36R) |
| WR032 (K1L) | WR082 (G5R) | WR129 (A10L) | WR167 (A42R) |
| WR033 (K2L) | WR087 (G9R) | WR130 (A11R) | WR169 |
| WR034 (K3L) | WR091 (L4R) | WR132 (A13L) | WR172 (A46R) |
| WR041 (F2L) | WR092 (L5R) | WR133 (A14L) | WR173 (A47L) |
| WR042 (F3L) | WR095 (J3R) | WR137 (A17L) | WR176 (A50R) |
| WR046 (F7L) | WR097 (J5L) | WR138 (A18R) | WR181 (A56R) |
| WR048 (F9L) | WR101 (H3L) | WR147 | WR184 (B2R) |
| WR052 (F13L) | WR103 (H5R) | WR148 | WR186 (B4R) |
| WR056 (F17R) | WR104 (H6R) | WR149 (A26L) | WR187 (B5R) |
| WR057 (E1L) | WR105 (H7R) | WR150 (A27L) | WR197 (B16R) |
| WR059 (E3L) | WR113 (D8L) | WR151 (A28L) | WR218 (B29R) |
| WR060 (E4L) | WR115 (D10R) | | |

Supplemental Table 2: Human reactivity post vaccination summary for three studies (1, 2).

| Author System/methodology Purity Vaccinees | Townsend cell free E. coli crude 15 | Duke-Cohen rabbit reticulocyte crude 20 | Schmid baculovirus GST purified 20 |
|---|--|--|---|
| % Reactivity | | | |
| WR132 (A13L) | 100 | nt | nt |
| WR118 (D13L) | 93 | 36 | 70 |
| WR101 (H3L) | 93 | 44 | 55 |
| WR113 (D8L) | 93 | 24 | nt |
| WR148 | 93 | nt | nt |
| WR137 (A17L) | 87 | nt | nt |
| WR070 (I1L) | 80 | nt | 60 |
| WR130 (A11R) | 60 | 8 | nt |
| WR156 (A33R) | 40 | 24 | 35 |
| WR129 (A10L) | 40 | nt | nt |
| WR150 (A27L) | 33 | 20 | 60 |
| WR123 (A4L) | 27 | 8 | nt |
| WR187 (B5R) | 20 | 28 | nt |
| WR157 (A34R) | 20 | nt | 0 |
| WR169 | 13 | nt | 0 |
| WR103 (H5R) | 7 | nt | 35 |
| WR181 (A56R) | 7 | 4 | nt |
| WR091 (L4R) | 7 | 12 | nt |
| WR072 (I3L) | 0 | nt | 15 |
| WR088 (L1R) | nt | 20 | 0 |
| WR025 (C3L) | nt | nt | 25 |

Number of proteins recognized/proteins tested

| | | | |
|---------------|-------|-------|-------|
| All Vaccinees | 18/61 | 12/25 | 8/218 |
| VIG | 28/61 | 8/25 | 8/218 |

nt = not tested

References:

1. **Duke-Cohan, J. S., K. Wollenick, E. A. Witten, M. S. Seaman, L. R. Baden, R. Dolin, and E. L. Reinherz.** 2009. The heterogeneity of human antibody responses to vaccinia virus revealed through use of focused protein arrays. *Vaccine* **27**:1154-1165.
2. **Schmid, K., S. L. Keasey, P. Pittman, G. L. Emerson, J. Meegan, A. P. Tikhonov, G. X. Chen, B. Schweitzer, and R. G. Ulrich.** 2008. Analysis of the human immune response to vaccinia by use of a novel protein microarray suggests that antibodies recognize less than 10% of the total viral proteome. *Proteom Clin Appl* **2**:1528-1538.