

**FIGURE 5** Cumulative mortality after challenge of vaccinated rainbow trout with *A. salmonicida*. The fish were vaccinated with RGNNV VLP-VapA, AP205 VLP-VapA, FKC, or buffer, with or without Freunds incomplete adjuvant (FIA). At 50 dpv, fish were challenged by IP injection of 5×104 CFU of *A. salmonicida*.

**Cumulative mortality(%)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **dpc**  **Vaccine** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** |
| RGNNV VLP-VapA | 0 | 0 | 0 | 16 | 36 | 43 | 45 | 49 | 52 | 53 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 57 |
| RGNNV VLP-VapA+FIA | 0 | 0 | 0 | 0 | 8 | 20 | 23 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| AP205 VLP-VapA | 0 | 0 | 0 | 12 | 27 | 37 | 43 | 47 | 49 | 49 | 49 | 49 | 49 | 49 | 52 | 52 | 52 | 52 | 52 |
| AP205 VLP-VapA+FIA | 0 | 0 | 0 | 9 | 17 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| FKC | 0 | 0 | 0 | 16 | 28 | 35 | 37 | 40 | 43 | 44 | 44 | 44 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| FKC+FIA | 0 | 0 | 0 | 7 | 23 | 25 | 28 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| Buffer | 0 | 0 | 0 | 23 | 43 | 59 | 61 | 71 | 72 | 75 | 76 | 77 | 77 | 77 | 79 | 79 | 79 | 79 | 80 |
| Buffer+FIA | 0 | 0 | 0 | 23 | 40 | 51 | 55 | 57 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 63 | 63 | 63 | 63 |

**Final mortality rates(%)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Rep1 | Rep2 | Rep3 | Rep4 | Rep5 | Average |
| RGNNV VLP-VapA | 60 | 53 | 67 | 50 | 64 | 57 |
| RGNNV VLP-VapA+FIA | 33 | 40 | 7 | 19 | 25 | 25 |
| A205 VLP-VapA | 60 | 67 | 27 | 53 | 50 | 52 |
| A205 VLP-VapA+FIA | 40 | 53 | 13 | 7 | 67 | 36 |
| A.sal FKC | 53 | 31 | 53 | 53 | 33 | 45 |
| A.sal FKC +FIA | 47 | 33 | 31 | 20 | 13 | 29 |
| Buffer | 100 | 53 | 67 | 87 | 87 | 80 |
| Buffer+FIA | 71 | 40 | 67 | 53 | 80 | 61 |

**Final survival rates(%)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Rep1 | Rep2 | Rep3 | Rep4 | Rep5 | Average |
| RGNNV VLP-VapA | 40 | 47 | 33 | 50 | 36 | 43 |
| RGNNV VLP-VapA+FIA | 67 | 60 | 93 | 81 | 75 | 75 |
| A205 VLP-VapA | 40 | 33 | 73 | 47 | 50 | 48 |
| A205 VLP-VapA+FIA | 60 | 47 | 87 | 93 | 33 | 64 |
| A.sal FKC | 47 | 69 | 47 | 47 | 67 | 55 |
| A.sal FKC +FIA | 53 | 67 | 69 | 80 | 87 | 71 |
| Buffer | 0 | 47 | 33 | 13 | 13 | 20 |
| Buffer+FIA | 29 | 60 | 33 | 47 | 20 | 39 |