

Supplemental Information

**A Gorilla Adenovirus-Based Vaccine
against Zika Virus Induces Durable Immunity
and Confers Protection in Pregnancy**

Ahmed O. Hassan, Igor P. Dmitriev, Elena A. Kashentseva, Haiyan Zhao, Douglas E. Brough, Daved H. Fremont, David T. Curiel, and Michael S. Diamond

Table S1. Evaluation of ZIKV vaccine platforms in mice, Related to all Figures

| Vaccine platform | Vaccine Efficacy in mice | | | | Reference |
|---|--------------------------|---|--|---|--------------------------------|
| | # Doses | Neutralization titer | Protection against ZIKV challenge | Protection against <i>in utero</i> transmission | |
| Gorilla adenovirus encoding prM-E (GAd-Zvp) | 1 or 2 | FRNT EC ₅₀ 1,796 ± 919 | Yes (No viremia or lethality) | Yes | This study |
| Ad26.ZIKV.M-Env | 1 | FRNT EC ₅₀ ~ 1,000 | Yes (No viremia) | N.D.* | (Cox et al., 2018) |
| Chimpanzee adenovirus type 7 (AdC7-M/E) | 1 | MN ₅₀ ~1,000 | Yes (No viremia or lethality) | N.D. | (Xu et al., 2018) |
| mRNA encoding prM-E | 2 | FRNT EC ₅₀ 10,000 | Yes (No lethality) | Yes | (Richner et al., 2017a, 2017b) |
| DNA encoding prM-E | 1 | MN ₅₀ 22 | Yes (No viremia) | N.D. | (Larocca et al., 2016) |
| DNA encoding E | 1 | NN ₅₀ <10 | No (viremia detected) | N.D. | (Larocca et al., 2016) |
| Measles-vectored prM-Zika-sE | 2 | PRNT ₅₀ 40 - 1,280 | Yes (Viremia and organ viral loads reduced) | Yes ** | (Nürnberger et al., 2018) |
| ZIKV-3'UTR-Δ10-LAV (live attenuated) | 1 | FRNT EC ₅₀ 18,900 ± 5,900 | Yes (No lethality) | Yes | (Shan et al., 2017a, 2017b) |
| DNA encoding prM-E | 1 | PRNT ₅₀ 456 ± 5 | Yes (No lethality) | N.D. | (Muthumani et al., 2016) |

| | | | | | |
|----------------------------------|---|----------------------------|---------------------|------|------------------------|
| DNA encoding prM-E | 1 | RVP ~1000-100000 | ND | N.D. | (Dowd et al., 2016) |
| Purified inactivated virus | 1 | MN ₅₀ 15 | Yes (No viremia) | N.D. | (Larocca et al., 2016) |
| hAd2-vecored prM-E, prM-E-NS1 | 2 | MN ₅₀ ~1,000 | Yes*** | N.D. | (Liu et al., 2018) |

*N.D. = not determined; FRNT, focus reduction neutralization test; PRNT, plaque reduction neutralization test; MN, microneutralization test; RVP, reporter virus particles.

** Reduced viremia and viral loads in fetuses and maternal tissues

*** Challenge in pups born to immunized dams showed reduced viral loads in brain and testis