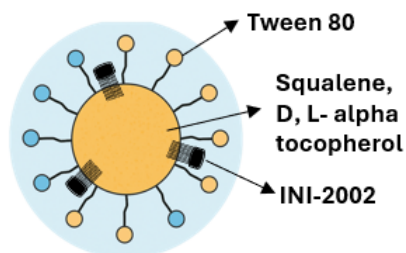


## T4SE - Pipeline Adjuvant

### Engineered for Th1-Driven Vaccine Innovation

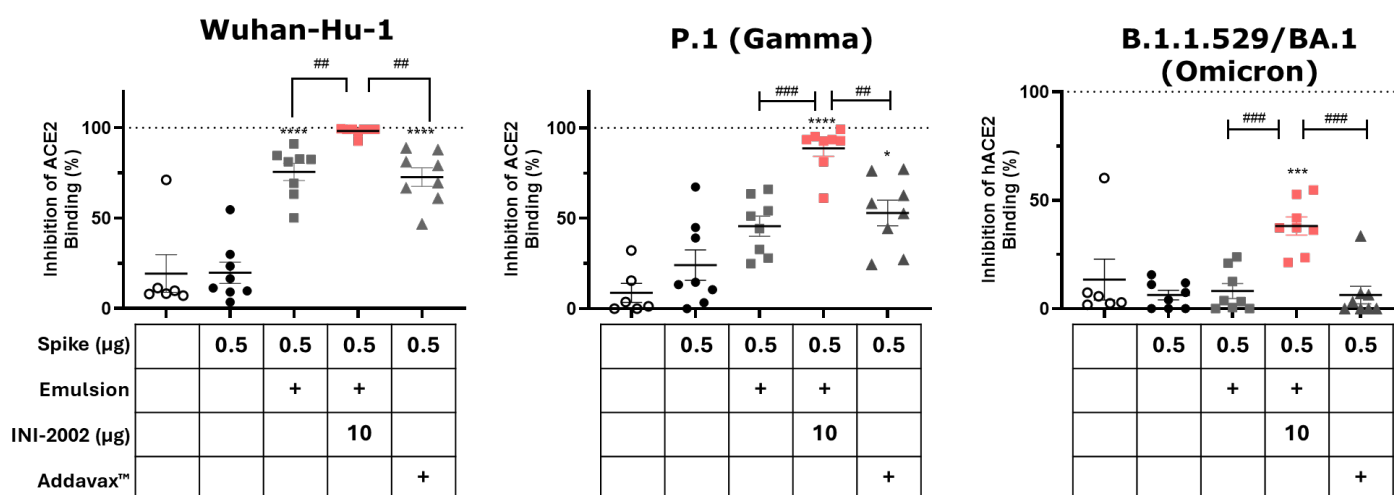


T4SE Adjuvant is an oil-in-water **squalene** emulsion combined with **INI-2002**, a fully synthetic TLR4 agonist. Its composition is similar to adjuvant systems already approved for human influenza vaccines, supporting its potential for future use.

In preclinical studies, adding INI-2002 to the squalene emulsion significantly improved immune responses, driving strong antibody quality and a balanced cellular response.

When tested with COVID-19 antigens, T4SE boosted neutralizing antibody levels and delivered broad protection across multiple variants, including Wuhan, Gamma, and Omicron. These results highlight T4SE's ability to provide cross-protection against evolving strains, helping vaccines remain effective as the virus changes.

By enhancing both antibody quality and cellular immunity, T4SE sets a new benchmark for next-generation vaccine adjuvants.



Data generated at the University of Montana and adapted from Lathrop, Stephanie K., et al. "Vaccination with ancestral SARS-CoV-2 spike adjuvanted with TLR agonists provides cross-protection against XBB. 1." npj Viruses 2.1 (2024): 28.

### Key Advantages:

- Robust IP Protection and available for licensing
- Good Chemical and Colloidal stability at 40°C
- Boosts **Th1-biased immunity**

**RUO samples, relevant Data and expert Assistance are Available to Support your Development.**

[www.spipharma.com](http://www.spipharma.com)

[salesinfo@spipharma.com](mailto:salesinfo@spipharma.com)

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