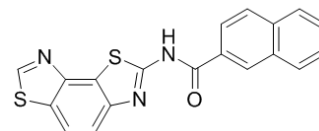


## Data Sheet

Product Name:	KIN1148
Cat. No.:	HY-101950
CAS No.:	1428729-56-9
Molecular Formula:	C <sub>19</sub> H <sub>11</sub> N <sub>3</sub> OS <sub>2</sub>
Molecular Weight:	361.44
Target:	HSP
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Solubility:	DMSO: ≥100 mg/mL



### BIOLOGICAL ACTIVITY:

KIN1148, a small-molecule **IRF3** agonist, is a novel influenza vaccine adjuvant found to enhance flu vaccine efficacy.

**In Vitro:** KIN1148 induces the dose-dependent nuclear translocation of IRF3 in PH5CH8 cells and specific activation of IRF3- responsive promoters. KIN1148 also elicits greater induction of endogenous IRF3-dependent ISG54 and OASL expression by PH5CH8 cells<sup>[1]</sup>.

**In Vivo:** Prime-boost immunization of mice with a suboptimal dose of a monovalent pandemic influenza split virus H1N1 A/California/07/2009 vaccine plus KIN1148 protect against a lethal challenge with mouse-adapted influenza virus (A/California/04/2009) and induce an influenza virus-specific IL-10 and Th2 response by T cells derived from lung and lung-draining lymph nodes. Primeboost immunization with vaccine plus KIN1148, but not prime immunization alone, induce antibodies capable of inhibiting influenza virus hemagglutinin and neutralizing viral infectivity. Nevertheless, a single immunization with vaccine plus KIN1148 provide increased protection over vaccine alone and reduce viral load in the lungs after challenge<sup>[1]</sup>.

### PROTOCOL (Extracted from published papers and Only for reference)

**Animal Administration:** KIN1148 is formulated in liposomes containing phosphatidylcholine, pegylated phosphatidylethanol and cholesterol in phosphate-buffered saline (PBS) by 6 h ultrasonication.<sup>[1]</sup> Mouse: The final liposomes prior to mixing with vaccine contained KIN1148 (5 mg/mL) and phospholipids (40 mg/mL) and are delivered intramuscularly (KIN1148 at 50 µg and phospholipid at 400 µg per dose). Blank liposomes are prepared without KIN1148 as vehicle control. KIN1148 liposome and blank liposome formulations are stable for at least 4 months at 4°C and are used for *in vivo* experiments within a month after preparation<sup>[1]</sup>.

### References:

[1]. Probst P, et al. A small-molecule IRF3 agonist functions as an influenza vaccine adjuvant by modulating the antiviral immune response. *Vaccine*. 2017 Apr 4; 35(15):1964-1971.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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