

**Supplementary Table 3.** Baseline characteristics of included studies based on immunization experiments with protein vaccines against *Toxoplasma gondii* in mouse models (single antigens)

Antigen	Adjuvant or carrier	Ag delivery	Mouse strain	Challenge	Immune responses	Brain cyst load	Survival	Conclusions or suggestions	Reference
MIC1	FCA and FIA	s.c	C57BL/6 (H-2 <sup>b</sup> )	40 and 80 cysts of the ME49 strain, orally	Induced a strong IgG antibody response (p<0.05) induced mixed Th1/Th2 immune responses with predominance of IgG2b over IgG1 (p<0.05) ↑ Splenocyte proliferation (p<0.05) ↑ IFN-γ and IL-10 (p<0.05)	Reduced (52%, p<0.05)	Increased survival rate (50%, 30-day post challenge, p<0.05) Control mice were died within 11 days.	The use of this vaccine offers a promising strategy for conferring protection against toxoplasmosis.	[21]
MIC4	FCA and FIA	s.c	C57BL/6 (H-2 <sup>b</sup> )	40 and 80 cysts of the ME49 strain, orally	Induced a strong IgG antibody response (p<0.05) induced mixed Th1/Th2 immune responses with predominance of IgG2b over IgG1 (p<0.05) ↑ Splenocyte proliferation (p<0.05) ↑ IFN-γ and IL-10 (p<0.05)	Reduced (46.9%, p<0.05)	Increased survival rate (50%, 30-day post challenge, p<0.05) Control mice were died within 11 days.	The use of this vaccine offers a promising strategy for conferring protection against toxoplasmosis.	[21]
MIC6	FCA and FIA	s.c	C57BL/6 (H-2 <sup>b</sup> )	40 and 80 cysts of the ME49 strain, orally	Induced a strong IgG antibody response (p<0.05) induced mixed Th1/Th2 immune responses with predominance of IgG2b over IgG1 (none significant) ↑ Splenocyte proliferation (p<0.05) ↑ IFN-γ and IL-10 (p<0.05)	Reduced (27.2%, none-significant)	Increased survival rate (40%, 30-day post challenge, p<0.05) Control mice were died within 11 days.	The use of this vaccine offers a promising strategy for conferring protection against toxoplasmosis.	[21]

MIC, microneme proteins; FCA, Freund's complete adjuvant; IFN-γ, interferon-γ; IL, interleukin; Th1, T helper 1.

**Supplementary Table 4.** Baseline characteristics of included studies based on immunization experiments with protein vaccines against *Toxoplasma gondii* in mouse models (mixed antigens)

Antigen	Adjuvant or carrier	Ag delivery	Mouse strain	Challenge	Immune responses	Brain cyst load	Survival	Conclusions or suggestions	Reference
MIC1+MIC4	FCA and FIA	s.c	C57BL/6 (H-2 <sup>b</sup> )	40 and 80 cysts of the ME49 strain, orally	Mixed IgG1/IgG2a response ↑ IFN-γ (9.274 ± 2.151 pg/mL, p<0.05), IL-2 (50 ± 5 pg/mL, p<0.05), and IL-10 (1,608 ± 380 pg/mL, p<0.05)	Reduced (68%, p<0.05)	Increased survival rate (80%, 30-day post challenge, p<0.05) Control mice were died within 11 days.	The data demonstrate that MIC1 and MIC4 triggered a protective response against toxoplasmosis, and that these antigens are targets for the further development of a vaccine.	[22]
MIC1+MIC4+MIC6	FCA and FIA	s.c	C57BL/6 (H-2 <sup>b</sup> )	40 and 80 cysts of the ME49 strain, orally	Induced a strong IgG antibody response (p<0.05) induced mixed Th1/Th2 immune responses with predominance of IgG2b over IgG1 (p<0.05) ↑ IFN-γ, IL-12 p-40, and IL-10 (p<0.05)	Reduced (59%, p<0.05)	Increased survival rate (70%, 30-day post challenge, p<0.05) Control mice were died within 11 days.	Our results demonstrate that microneme proteins are potential vaccines against <i>T. gondii</i> , since their inoculation prevents or decreases the deleterious effects of the infection.	[21]
MIC1+MIC4+MIC6	FCA and FIA	s.c	C57BL/6 (H-2 <sup>b</sup> )	40 and 80 cysts of the ME49 strain, orally	Induced a strong IgG antibody response (p<0.05)	Reduced (67.8%, p<0.05)	Increased survival rate (80%, 30-day post challenge, p<0.05)	Our results demonstrate that microneme proteins are potential vaccines against <i>T. gondii</i> , since their inoculation prevents or decreases the deleterious effects of the infection.	[21]

MIC, microneme proteins; s.c, subcutaneous; IFN-γ, interferon-γ; IL, interleukin; Th1, T helper 1.