

## Supplementary Materials for

### **Blood-stage malaria parasites manipulate host innate immune responses through the induction of sFGL2**

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Fig. S3. sFGL2 has no effect on parasite-specific CD4<sup>+</sup> T cell activation.

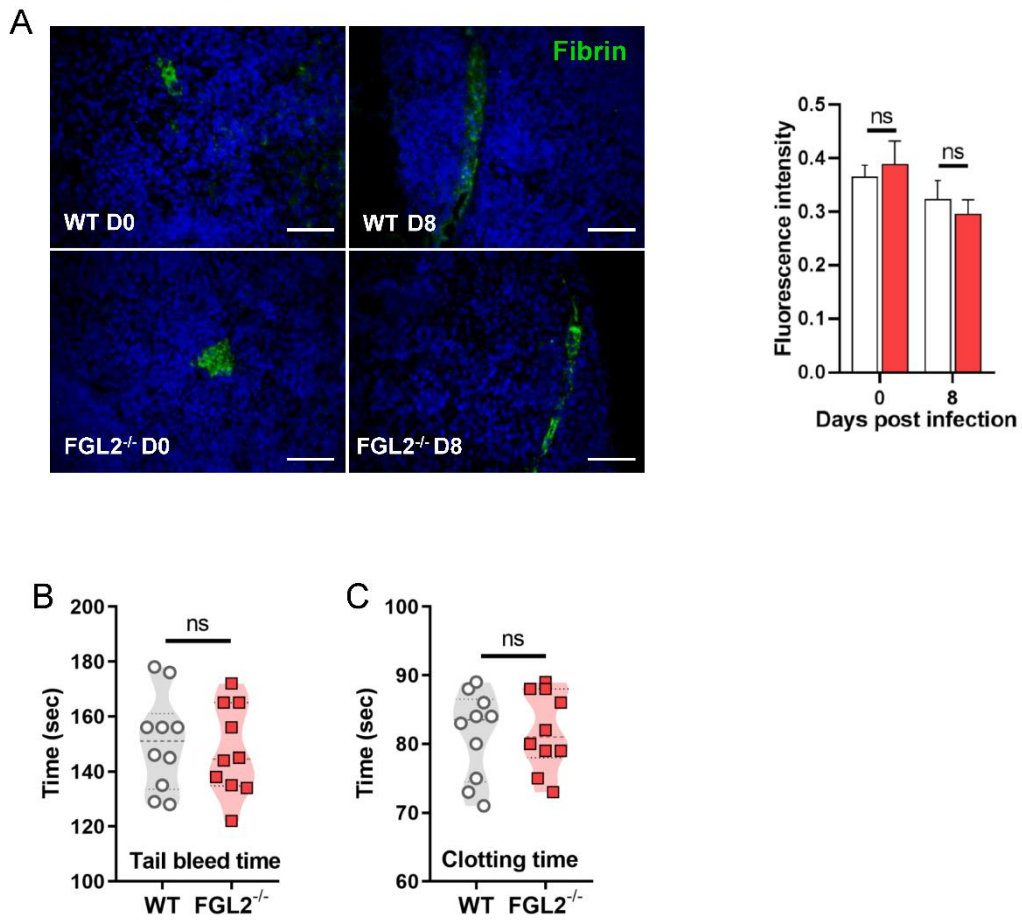
Fig. S4. sFGL2 has no effect on parasite-specific CD8<sup>+</sup> T cell activation.

Fig. S5. Full blots of the effect of rFGL2 administration on both mitogen-activated protein kinase and NF- $\kappa$ B activity in *P. chabaudi* lysate-stimulated macrophages by rFGL2.

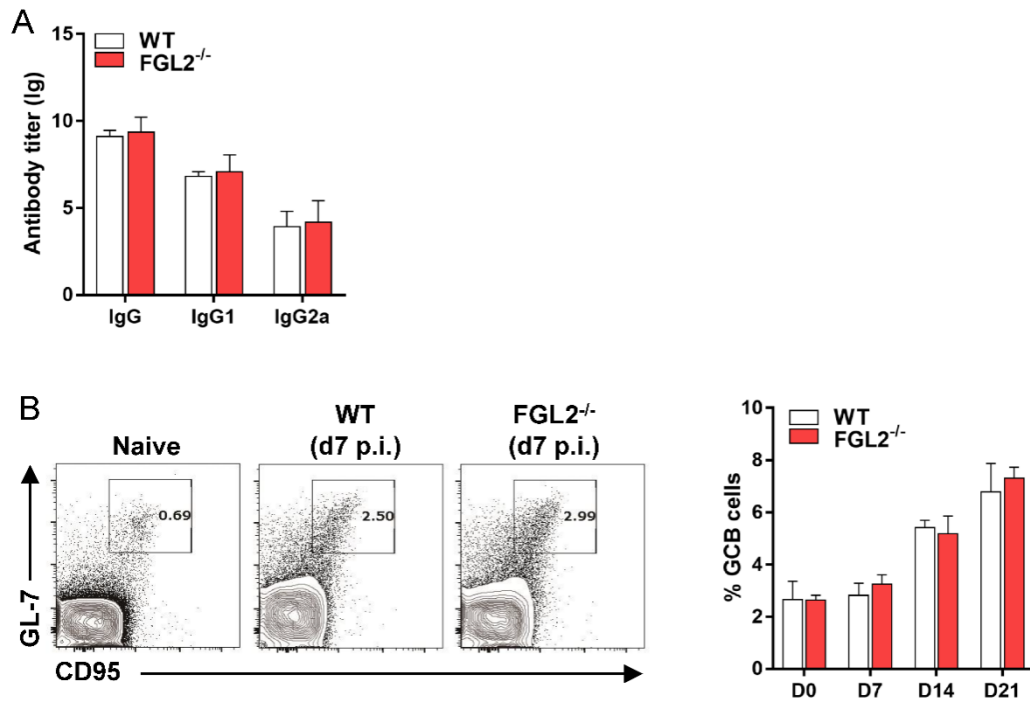
Fig. S6. Full blots of the Fc $\gamma$ RIIB-dependent inhibition of JNK in *P. chabaudi* lysate-activated macrophages by sFGL2.

Fig. S7. Full blots of the inhibition of JNK in *P. falciparum* lysate-activated macrophages by rFGL2.

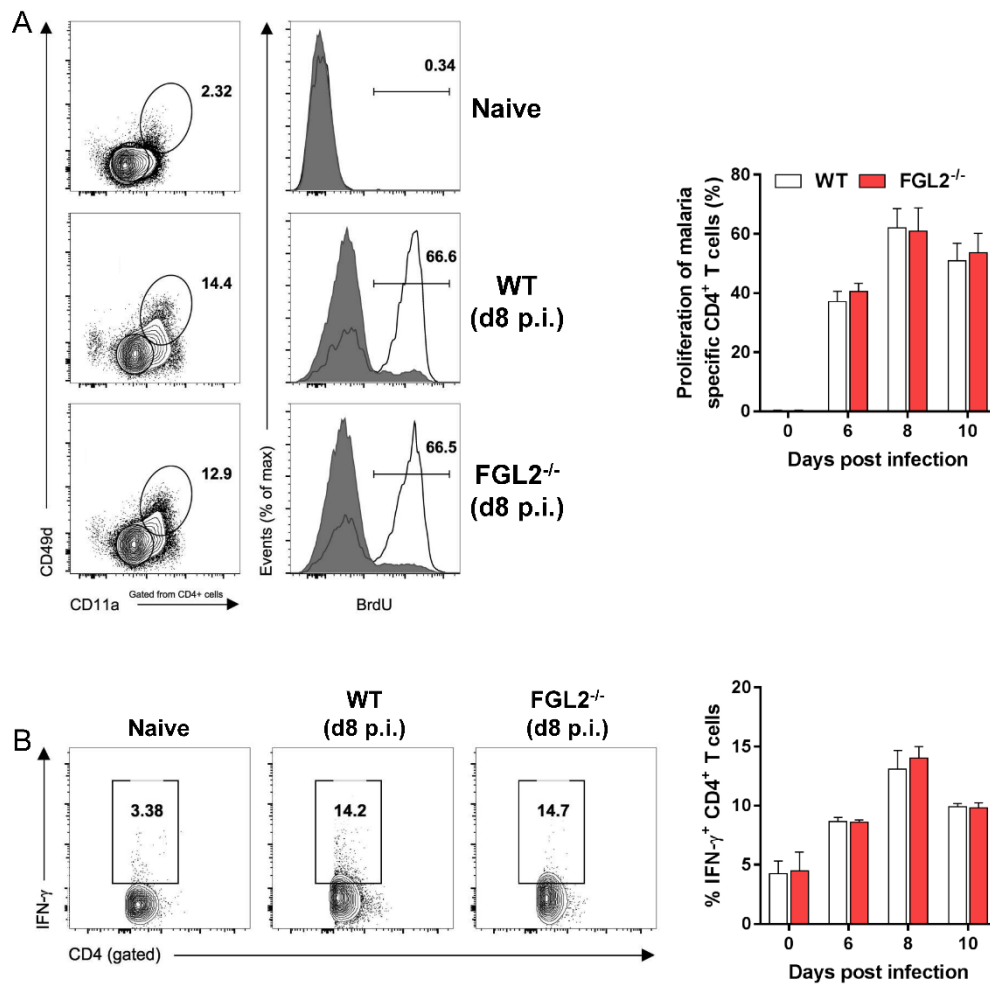
Table S1. Detailed information of patients with malaria.



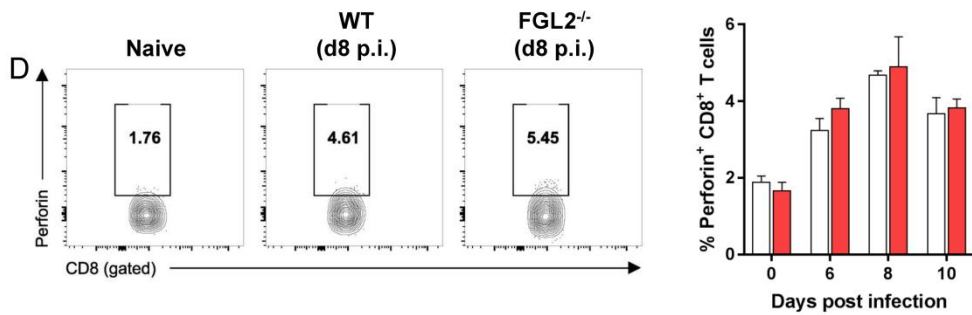
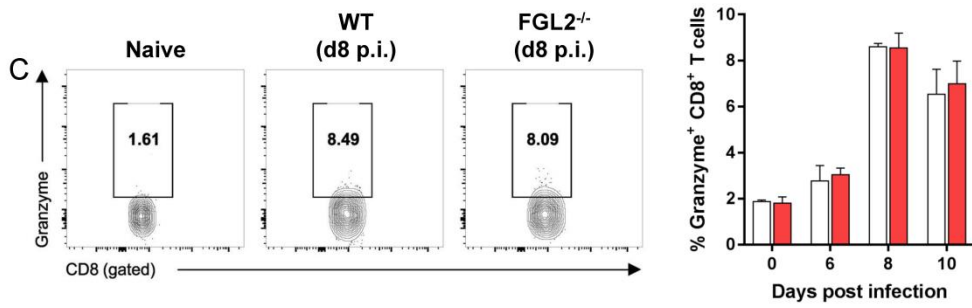
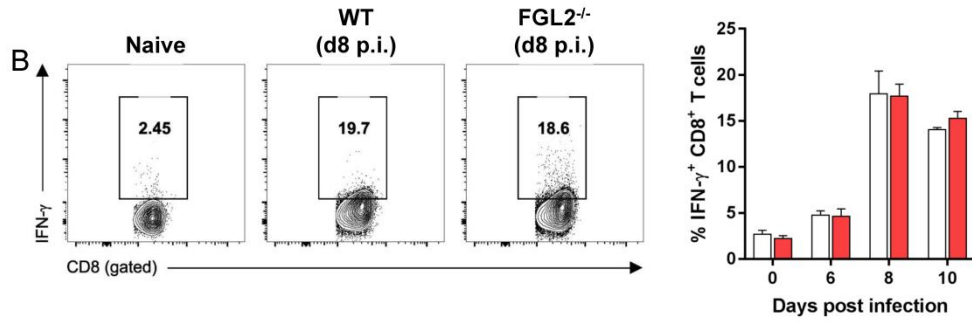
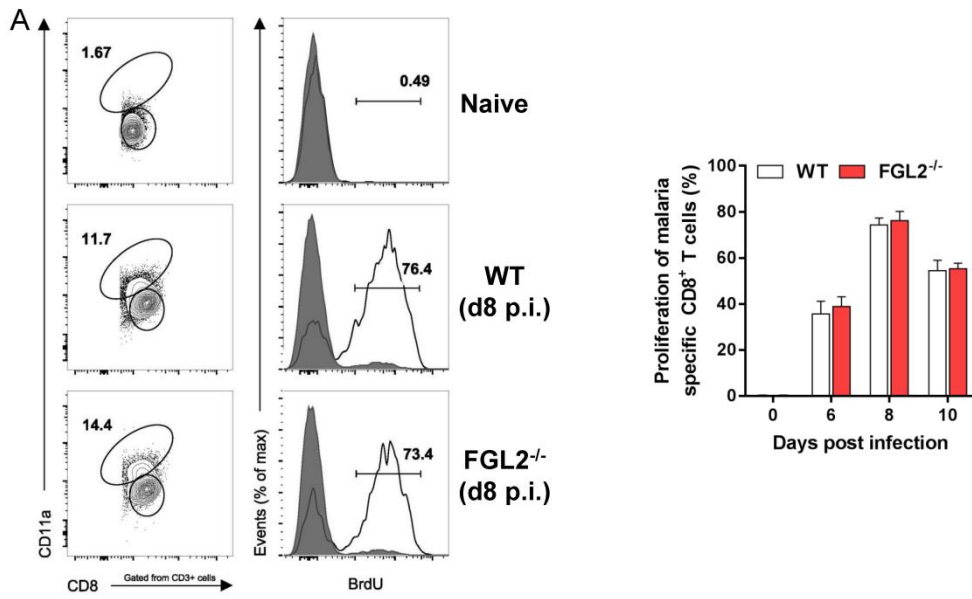
**Fig. S1. FGL2 deficiency has no significant effect on both fibrin deposition in the spleen and coagulation function of the parasite-infected mice. (A)** Immunofluorescence assay of fibrin deposition (green) in the spleens of WT and FGL2<sup>-/-</sup> mice at 8 days post-infection with *P. chabaudi* (left); the intensity of fibrin was statistically analyzed (right). **(B)** Tail bleed time (right) and clotting time (left) between WT and FGL2<sup>-/-</sup> mice at 8 days post-infection with *P. chabaudi*. Data are pooled from three independent experiments with at least five mice per group and represent mean  $\pm$  SD. ns, not significant.



**Fig. S2. sFGL2 has no effect on parasite-specific antibody production. (A)** The levels of malaria parasite-specific total IgG, IgG1 and IgG2a in the serum of WT and FGL2<sup>-/-</sup> mice were detected by ELISA at 7 days post-infection with *P. chabaudi*. **(B)** The representative result of GC B cells (B220<sup>+</sup>CD95<sup>+</sup>GL7<sup>+</sup>) in spleen of WT and FGL2<sup>-/-</sup> mice at the indicated time points post-infection with *P. chabaudi* by flow cytometry (*left*), and the difference of GC B cells level between WT and FGL2<sup>-/-</sup> mice was statistically analyzed (*right*). Data are pooled from three independent experiments with five mice per group and represent as mean  $\pm$  SD.



**Fig. S3. sFGL2 has no effect on parasite-specific CD4<sup>+</sup> T cell activation.** (A) The representative FACS analysis of (upper) and the statistical analysis (bottom) of the proliferation of parasite-specific CD4<sup>+</sup> (CD4<sup>+</sup>CD49d<sup>high</sup>CD11a<sup>high</sup>) in spleen of WT and FGL2<sup>-/-</sup> mice at the indicated time points post-infection with *P.chabaudi*. (B) The representative FACS analysis (left) and statistical analysis (right) of IFN- $\gamma$  production of malaria parasite-specific CD4<sup>+</sup> T cells in spleen of WT and FGL2<sup>-/-</sup> mice at the indicated time points post-infection with *P.chabaudi*. Data represent three separate experiments with at least three mice per group and represent the mean  $\pm$  SD.



**Fig. S4. sFGL2 has no effect on parasite-specific CD8<sup>+</sup> T cell activation. (A)** The representative FACS analysis (*left*) and statistical analysis (*right*) of the proliferation of parasite-specific CD8<sup>+</sup> (CD8a<sup>low</sup>CD11a<sup>high</sup>). **(B)** The representative FACS analysis (*left*) and statistical analysis (*right*) of IFN- $\gamma$  production of malaria parasite-specific CD8<sup>+</sup> T cells in spleen of WT and FGL2<sup>-/-</sup> mice at the indicated time points post-infection with *P.chabaudi*. **(C)** The representative FACS analysis (*left*) and statistical analysis (*right*) of Granzyme B production of malaria parasite-specific CD8<sup>+</sup> T cells in spleen of WT and FGL2<sup>-/-</sup> mice post-infection. **(D)** The representative FACS analysis (*left*) and statistical analysis (*right*) of perforin production of malaria parasite-specific CD8<sup>+</sup> T cells in spleen of WT and FGL2<sup>-/-</sup> mice post-infection with *P.chabaudi*. Data represent three separate experiments with at least three mice per group and represent as the mean  $\pm$  SD.

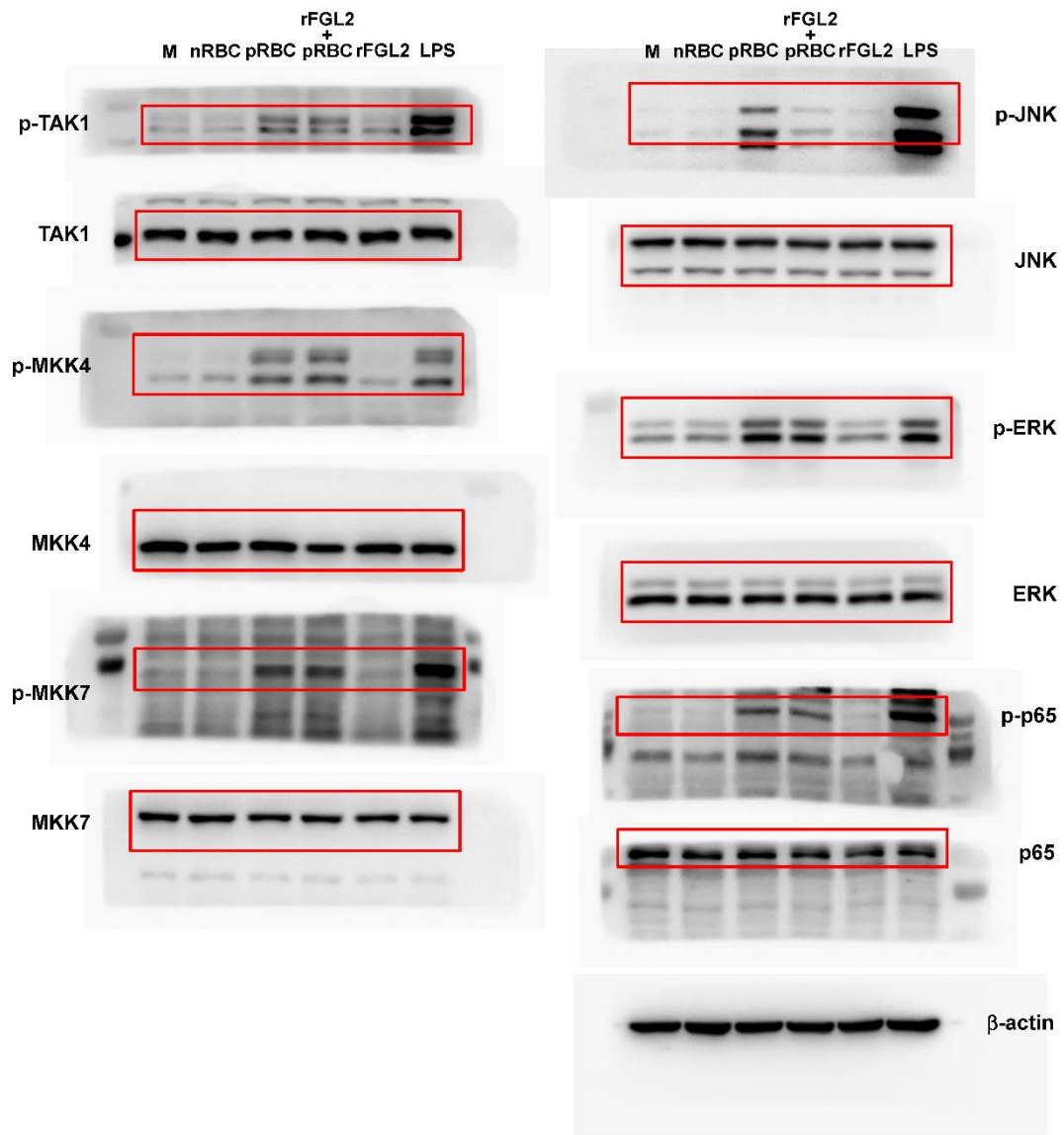


Fig. S5. Full blots of the effect of rFGL2 administration on both mitogen-activated protein kinase and NF- $\kappa$ B activity in *P. chabaudi* lysate-stimulated macrophages by rFGL2. Related to Figure 4.

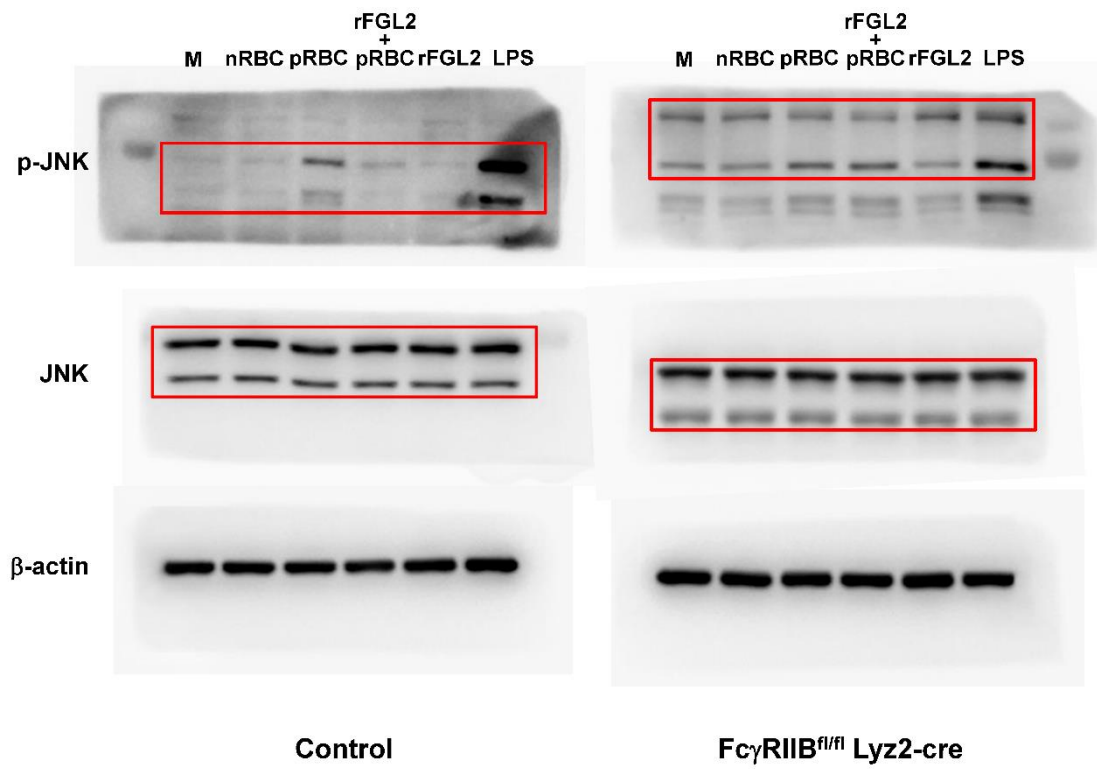
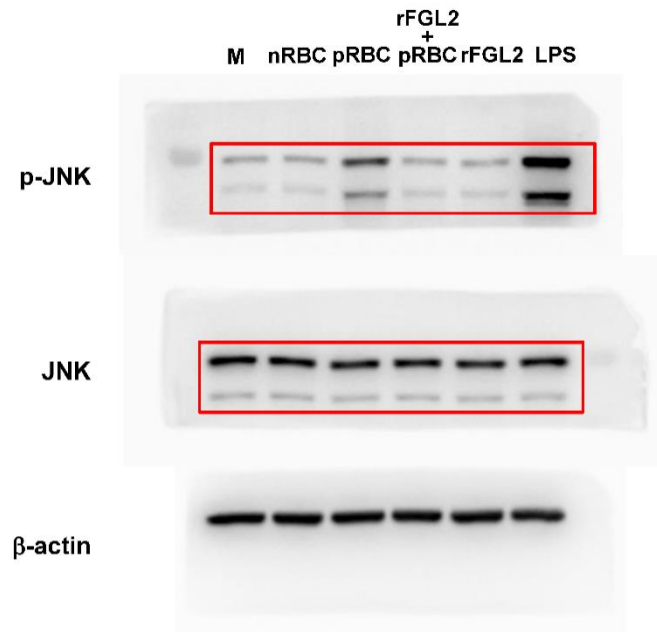


Fig. S6. Full blots of the FcγRIIB-dependent inhibition of JNK in *P. chabaudi* lysate-activated macrophages by sFGL2. Related to Figure 5.





**Fig. S7. Full blots of the inhibition of JNK in *P. falciparum* lysate-activated macrophages by rFGL2. Related to Figure 5.**

**Table S1. Detailed information of patients with malaria.**

Sample ID <sup>a</sup>	Sex <sup>b</sup>	Age	Axillary temperature	Asexual density	Gametocyte density	Malaria history <sup>c</sup>	Previous malaria date	Previous malaria species	Year	Month
PF4	1	20	37.8	160	0	N			2013	5
PF5	1	25	38.4	3880	0	N			2013	5
PF6	1	29	38	27200	0	N			2013	5
PF7	1	47	37.1	440	0	N			2013	6
PF8	1	33	38	9400	0	N			2013	6
PF9	1	32	37	400	0	N			2013	1
PF10	1	19	37	0	1280	N			2013	2
PF14	1	9	38.5	9840	0	N			2013	5
PF16	1	26	38	800	0	N			2013	5
PF17	1	33	38	1800	0	N			2013	6
PF18	1	24	38	720	0	N			2013	6
PF19	1	20	39	20640	0	N			2013	6
PF22	2	45	Unknown	840	0	N			2013	6
PF24	2	58	37.5	800	0	N			2013	6
PF25	1	24	38	6400	0	N			2013	6
PF26	2	25	37.5	19520	0	N			2013	6
PF27	2	24	37.5	40000	0	N			2013	6
PF28	1	19	40	30400	0	N			2013	6
PF29	1	57	37	12400	0	N			2013	6
PF36	1	12	39	15040	0	N			2013	6
PV109	1	8	36	8680	440	N			2013	6
PV112	2	7	38	240	40	N			2013	6
PV113	1	7	40	6240	520	N			2013	4
PV115	1	7	40.5	320	120	N			2013	4
PV131	1	3	39	5640	200	N			2013	6
PV136	2	2	38	760	0	Y	2011/1/1	PV	2013	5
PV141	1	15	37.1	1280	0	N			2013	6
PV142	2	12	39.5	1400	0	N			2013	6
PV143	1	7	39.2	1240	0	N			2013	6
PV150	1	11	38.5	1640	360	Y	2012/6/1	PV	2013	6
PV151	1	12	40.4	840	0	N			2013	6
PV155	2	13	41	320	240	N			2013	7
PV2	1	6	37	0	16	N			2015	6
PV6	2	18	40	3960	80	N			2015	6
PV10	2	18	38.5	23680	1480	N			2015	6
PV11	1	5	37	928	192	N			2015	6
PV15	1	32	37.6	48000	1800	N			2015	6

PV17	2	20	37	18440	720	N	2015	6
PV18	2	19	37.8	11560	560	N	2015	6
PV29	2	13	37	12080	320	N	2015	6
PV34	2	20	37	10000	2040	N	2015	6
PV35	2	7	39.5	4080	600	N	2015	6
PV39	2	6	37	736	80	N	2015	6
PV477	1	3	36	11200	2280	N	2015	7
PV76	1	10	38.5	3600	200	N	2015	7
PV155	2	16	38.5	5640	3120	N	2015	6
PV244	2	30	38.5	768	608	N	2015	10
PV249	2	35	38	4400	1600	N	2015	9
PV254	2	13	39.5	320	0	N	2015	9
PV276	2	37	38	1088	32	N	2015	11
PV279	1	11	39.5	912	240	N	2015	11
PV315	1	57	39.5	3920	160	Y	2015	11
PV322	1	34	39.1	1280	448	N	2015	11
PV420	2	33	37	640	800	N	2015	4
PV422	2	20	38	16400	0	N	2015	5
PV423	1	11	39.8	4400	1200	N	2015	4
PV426	2	18	37	7920	1320	N	2015	4
PV431	1	62	39.1	19920	1560	N	2015	3
PV434	1	19	38	20400	1560	N	2015	5
PV436	2	9	36	480	896	N	2015	4
PV444	2	12	39	10520	200	N	2015	4
PV445	1	18	39	13800	200	N	2015	5
PV464	1	33	40	7600	5000	N	2015	5
PV475	2	12	36.6	23920	360	N	2015	5

<sup>a</sup> PF, *Plasmodium falciparum*; PV, *Plasmodium vivax*.

<sup>b</sup> 1, male; 2, female.

<sup>c</sup> Y, yes; N, no.