



SUPPLEMENT FOR Goihl et al.

Table S1: Sex and age data of 10 healthy control volunteers and 4 patients with LGI1 LE.

	Sex	Age
healthy control 1	Female	36
healthy control 2	Female	31
healthy control 3	Female	63
healthy control 4	Male	50
healthy control 5	Male	54
healthy control 6	Female	59
healthy control 7	Female	59
healthy control 8	Male	61
healthy control 9	Female	54
healthy control 10	Male	63
patient 1	Female	60
patient 2	Female	67
patient 3	Male	61
patient 4	Female	46

Table S2. Proliferation calculated as stimulation index of PBMC of 4 patients with LGI1 LE or of 10 healthy control volunteers in absence or presence of native or denatured recombinant LGI1 after 4 days of incubation.

Proliferation (stimulation index)	control	supernatant	native LGI1	denaturated LGI1
healthy control 1	1	1,68	1,89	1,98
healthy control 2	1	1,81	1,13	1,69
healthy control 3	1	0,79	0,71	1,13
healthy control 4	1	2,94	4,11	0,92
healthy control 5	1	0,82	0,83	0,96
healthy control 6	1	1,72	1,11	2,33
healthy control 7	1	1,09	1,59	2,19
healthy control 8	1	1,06	0,99	1,00
healthy control 9	1	0,9	1,36	1,00
healthy control 10	1	1,04	1,22	1,32
patient 1	1	0,81	0,94	0,99
patient 2	1	1,38	6,32	5,18
patient 3	1	1,31	6,50	4,67
patient 4	1	1,25	27,61	13,73

Table S3. Concentrations of IFN- γ in cell culture supernatants of PBMC of 4 patients with LGI1 LE or of 10 healthy control volunteers in absence or presence of native or denatured recombinant LGI1 after 4 days of incubation.

IFN- γ (pg/ml)	control	supernatant	native LGI1	denatured LGI1
healthy control 1	21.0	17.2	68.9	28.6
healthy control 2	23.0	9.1	14.8	25.8
healthy control 3	20.5	23.5	31.6	40.9
healthy control 4	20.1	11.9	58.1	29.4
healthy control 5	20.7	34.1	233.2	50.4
healthy control 6	9.6	8.8	9.7	10.8
healthy control 7	9.1	8.1	15.1	12.8
healthy control 8	7.2	19.8	40.0	10.8
healthy control 9	7.5	7.7	10.6	8.1
healthy control 10	12.8	8.9	9.9	7.9
patient 1	14.9	22.7	30.0	14.0
patient 2	38.7	22.0	10.7	23.4
patient 3	65.3	16.8	17.5	20.0
patient 4	12.5	27.8	53.6	37.7

Table S4. Concentrations of IL-5 in cell culture supernatants of PBMC of 4 patients with LGI1 LE or of 10 healthy control volunteers in absence or presence of native or denatured recombinant LGI1 after 4 days of incubation.

IL-5 (pg/ml)	control	supernatant	native LGI1	denaturated LGI1
healthy control 1	1.6	0.8	1.4	3.8
healthy control 2	2.6	3.1	1.7	2.2
healthy control 3	2.1	2.0	2.4	1.4
healthy control 4	3.3	6.1	3.6	2.9
healthy control 5	2.3	1.4	1.4	1.3
healthy control 6	1.2	1.0	1.3	1.5
healthy control 7	1.8	2.4	0.9	1.0
healthy control 8	1.6	0.8	2.2	1.0
healthy control 9	0.5	0.6	1.0	0.8
healthy control 10	0.7	0.8	1.1	0.9
patient 1	2.6	5.8	3.4	2.7
patient 2	1.2	3.3	2.2	0.9
patient 3	1.6	1.2	1.8	1.6
patient 4	1.5	1.6	1.1	2.3

Table S5. Concentrations of IL-10 in cell culture supernatants of PBMC of 4 patients with LGI1 LE or of 10 healthy control volunteers in absence or presence of native or denatured recombinant LGI1 after 4 days of incubation.

IL-10 (pg/ml)	control	supernatant	native LGI1	denatured LGI1
healthy control 1	7.2	n.d.	538.5	460.2
healthy control 2	2.5	6.6	11.4	6.8
healthy control 3	2.2	14.1	25.7	21.2
healthy control 4	2.9	33.4	427.0	85.9
healthy control 5	129.1	136.7	206.0	219.4
healthy control 6	129.5	121.4	127.8	124.7
healthy control 7	126.5	131.3	244.5	162.7
healthy control 8	125.9	127.5	147.6	132.5
healthy control 9	126.2	125.3	127.5	124.4
healthy control 10	124.5	125.6	124.8	125.0
patient 1	13.6	n.d.	1149.2	871.0
patient 2	4.7	37.6	2071.2	432.1
patient 3	5.3	16.4	1594.3	205.3
patient 4	8.8	22.5	1022.8	249.9

Table S6. Concentrations of IL-17 in cell culture supernatants of PBMC of 4 patients with LGI1 LE or of 10 healthy control volunteers in absence or presence of native or denatured recombinant LGI1 after 4 days of incubation.

IL-17 (pg/ml)	control	supernatant	native LGI1	denatured LGI1
healthy control 1	7.9	8.8	15.5	14.1
healthy control 2	12.7	12.8	13.2	14.4
healthy control 3	11.8	12.9	12.4	12.4
healthy control 4	12.2	13.9	40.2	40.2
healthy control 5	2.5	5.0	5.7	9.3
healthy control 6	4.2	2.8	2.5	2.4
healthy control 7	2.7	3.3	0.0	3.5
healthy control 8	3.4	31.6	5.9	2.5
healthy control 9	1.3	1.5	1.9	1.9
healthy control 10	3.3	5.0	0.9	1.6
patient 1	8.8	20.5	44.2	26.2
patient 2	12.4	12.1	13.3	13.1
patient 3	11.8	12.5	13.1	13.1
patient 4	7.3	6.7	20.5	6.1

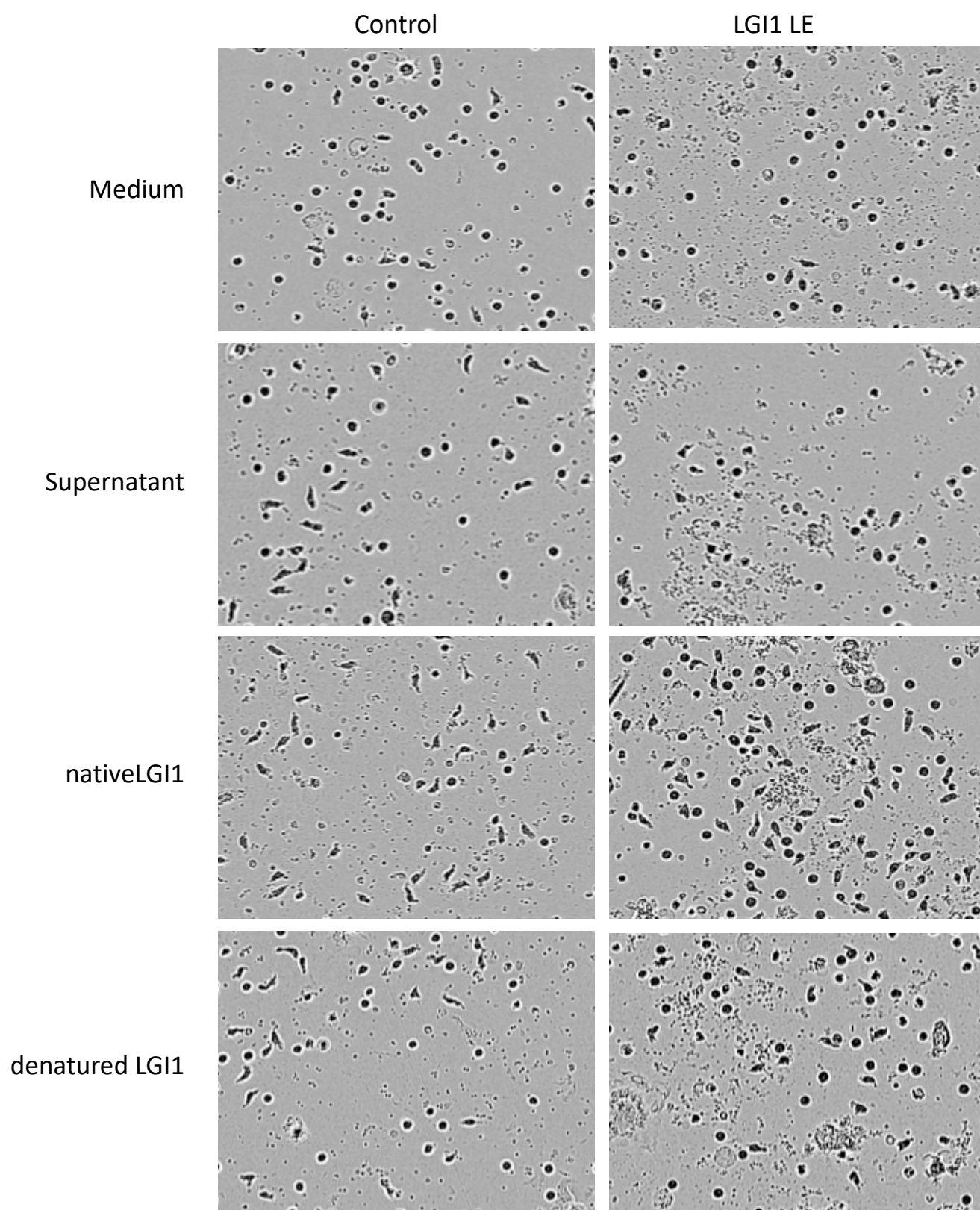


Figure S1. Representative pictures of cell cultures of PBMC from a healthy control and a patient with LGI1 ab-mediated LE incubated with medium, HEK 293 cell supernatant, native and denatured LGI1.

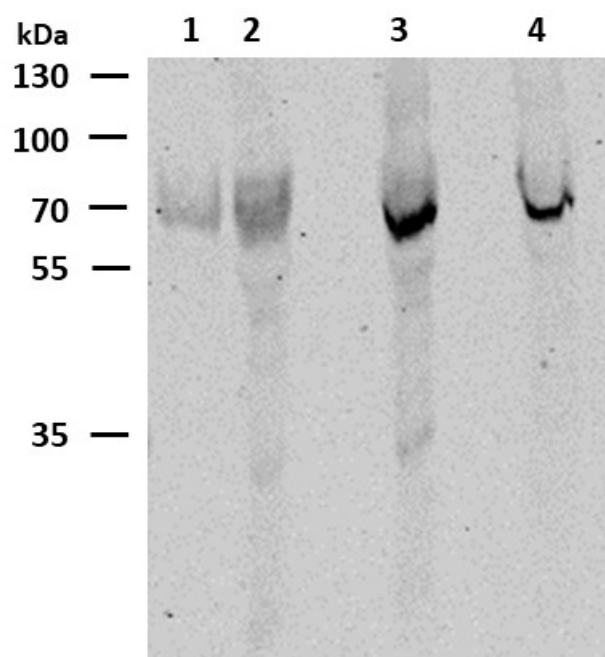


Figure S2. Verification of LGI1 expression and purification: Lane 1: ahead of every LGI1 purification protein expression and secretion was checked in supernatants by SDS-PAGE with Coomassie staining. Lane 2: after elution from His-Tag affinity chromatography increased concentration of LGI1 could be detected. Lane 3 and 4: polishing LGI1-containing solution with always 2 runs of size exclusion chromatography improved the purity of the desired protein.