$1 \qquad \text{Table S1. Correlation between immunotherapy effectiveness and positivity for one or more \underline{anti-mouse} \\$

2 <u>cerebellar tissue-derived antigen antibody</u> test or the anti-GAD antibody test.

Positive crit	teria	;		Effect of immunotherapy			
Anti-GAD	antib	odies detected	d or the anti-				Eigh au'g
mouse cerel	bella	r tissue-derive	ed antigen	T CC .	Ecc .:	T 1	Fisher's
antibody tes	st sco	ore exceeded t	he reference	Ineffective	Effective	Total	exact test
score.	score.						
		Negative	Frequency	1	1	2	2
	1		Percentage	50.0%	50.0%	100.0%	~ 0.400
	1	Positive	Frequency	6	17	23	p=0.490
			Percentage	26.1%	73.9%	100.0%	
		Negative	Frequency	7	3	10	
			Percentage	63.6%	36.4%	100.0%	.0.001
	2	Positive	Frequency	0	15	15	p<0.001
			Percentage	0.0%	100.0%	100.0%	
		Negative	Frequency	7	7	14	n_0.000
Reference	2		Percentage	50.0%	50.0%	100.0%	
score	3	Positive	Frequency	0	11	11	p=0.008
			Percentage	0.0%	100.0%	100.0%	
		Negative	Frequency	7	7	14	
	4		Percentage	50.0%	50.0%	100.0%	0.000
	4	Positive	Frequency	0	11	11	p=0.008
			Percentage	0.0%	100.0%	100.0%	
		Negative	Frequency	7	8	15	
	_	_	Percentage	44.4%	55.6%	100.0%	0.020
	5	Positive	Frequency	0	10	10	p=0.020
			Percentage	0.0%	100.0%	100.0%	
	Total Frequency		Frequency	7	18	25	
		Percentage		28.0%	72.0%	100.0%	

4 Table S2. Correlation between immunotherapy effectiveness and positivity of one or more <u>anti-mouse</u>

5 <u>cerebellar tissue-derived antigen antibody</u> test or the anti-gliadin antibody (IgA class) test.

Positive crit	teria:	;		Effect of immunotherapy										
Anti-gliadir	n anti	ibody (IgA cla	ass) detected				Fisher's							
or the anti-r	nous	se cerebellar ti	ssue-derived_	I CC 4:	T-664:	T-4-1								
antigen anti	body	z test score ex	ceeded the	Ineffective	Effective	Total	exact test							
reference score.														
		Negative	Frequency	1	0	1								
	1		Percentage	100.0%	0.0%	100.0%	n_0.290							
	1	Positive	Frequency	6	18	24	p=0.280							
			Percentage	25.0%	75.0%	100.0%								
		Negative	Frequency	6	2	8	~ 0.001							
	2		Percentage	75.0%	25.0%	100.0%								
	2	Positive	Frequency	1	16	17	p=0.001							
			Percentage	5.9%	94.1%	100.0%								
		Negative	Frequency	6	4	10	p=0.007							
Reference	3		Percentage	60.0%	40.0%	100.0%								
score	3	Positive	Frequency	1	14	15	p=0.007							
			Percentage	6.7%	93.3%	100.0%								
		Negative	Frequency	6	4	10								
	4	4	4	4	4	4	4	4		Percentage	60.0%	40.0%	100.0%	- 0.007
									Positive	Frequency	1	14	15	p=0.007
			Percentage	6.7%	93.3%	100.0%								
		Negative	Frequency	6	5	11								
	_		Percentage	54.6%	45.5%	100.0%	m 0.021							
	5	Positive	Frequency	1	13	14	p=0.021							
			Percentage	7.1%	92.9%	100.0%								
	-	Γotal	Frequency	7	18	25								
	Percentage		Percentage	28.0%	72.0%	100.0%								

Table S3. Correlation between immunotherapy effectiveness and positivity of one or more <u>anti-mouse</u>
 <u>cerebellar tissue-derived antigen antibody</u> test or the anti-TG6 antibody (IgA class) test.

Positive cri	teria:	:		Effect of immunotherapy			
the anti-mo	use o	ody (IgA class cerebellar tisso y test score ex	ue-derived_	Ineffective	Effective	Total	Fisher's exact test
		Negative	Frequency	1	1	2	
			Percentage	50.0%	50.0%	100.0%	0.400
	1	Positive	Frequency	6	17	23	p=0.490
			Percentage	26.1%	73.9%	100.0%	
		Negative	Frequency	6	4	10	p=0.007
	2		Percentage	60.0%	40.0%	100.0%	
	2	Positive	Frequency	1	14	15	
			Percentage	6.7%	93.3%	100.0%	
		Negative	Frequency	6	7	13	p=0.073
Reference	3	Positive	Percentage	46.2%	53.9%	100.0%	
score	3		Frequency	1	11	12	
			Percentage	8.3%	91.7%	100.0%	
		Negative	Frequency	6	7	13	
	4		Percentage	46.2%	53.9%	100.0%	p=0.073
	7	Positive	Frequency	1	11	12	p=0.073
			Percentage	8.3%	91.7%	100.0%	
		Negative	Frequency	6	8	14	
	5	Positive	Percentage	42.9%	57.1%	100.0%	p=0.090
			Frequency	1	10	11	p=0.090
			Percentage	9.1%	90.9%	100.0%	
	-	Γotal	Frequency	7	18	25	
			Percentage	28.0%	72.0%	100.0%	

TG6: transglutaminase 6

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Table S4. Correlation between immunotherapy effectiveness and positivity of one or more <u>anti-mouse</u>

cerebellar tissue-derived antigen antibody test, the anti-GAD antibody test, or the anti-gliadin antibody

(IgA class) test.

Positive crit	teria	:		Effect of immunotherapy			
		ody or anti-gl	iadin antibody	Y CC .:	TICC .:	m . 1	Fisher's
cerebellar ti	issue	-derived antig	gen antibody	Ineffective	Effective	Total	exact test
test score ex	test score exceeded the reference score.						
		Negative	Frequency	1	0	1	
	1		Percentage	100.0%	0.0%	100.0%	0.280
	1	Positive	Frequency	6	18	24	p=0.280
			Percentage	25.0%	75.0%	100.0%	
		Negative	Frequency	6	1	7	%
	2		Percentage	75.0%	25.0%	100.0%	
	2	Positive	Frequency	1	17	18	p<0.001
			Percentage	5.6%	94.4%	100.0%	
		Negative	Frequency	6	3	9	p=0.003
Reference	3		Percentage	66.7%	33.3%	100.0%	
score	3	Positive	Frequency	1	15	16	
			Percentage	6.3%	93.8%	100.0%	
		Negative	Frequency	6	3	9	
	4		Percentage	66.7%	33.3%	100.0%	- 0.002
	4	Positive	Frequency	1	15	16	p=0.003
			Percentage	6.3%	93.8%	100.0%	
		Negative Positive	Frequency	6	4	10	p=0.007
	5		Percentage	60.0%	40.0%	100.0%	
	3		Frequency	1	14	15	
			Percentage	6.7%	93.3%	100.0%	
	-	Γotal	Frequency	7	18	25	
		Percentage		28.0%	72.0%	100.0%	

Table S5. Correlation between immunotherapy effectiveness and positivity of one or more <u>anti-mouse</u>

cerebellar tissue-derived antigen antibody test, the anti-GAD antibody test, or the anti-gliadin antibody

(IgG class) test.

Positive crit	teria	;		Effect of immunotherapy			
Anti-GAD	antib	ody or anti-gl	iadin antibody				Fisher's
(IgG class)	dete	cted or the ant	i-mouse_	Ineffective	Effective	Total	exact test
cerebellar ti	issue	-derived antig	gen antibody	menective	Effective		
test score ex	test score exceeded the reference score.						
		Negative	Frequency	0	0	0	
	1		Percentage	-	-	-	
	1	Positive	Frequency	7	18	25	-
			Percentage	28.0%	72.0%	100.0%	
		Negative	Frequency	4	2	6	p=0.032
			Percentage	66.7%	33.3%	100.0%	
	2	Positive	Frequency	3	16	19	
			Percentage	15.8%	84.2%	100.0%	
		Negative	Frequency	4	6	10	p=0.378
Reference			Percentage	40.0%	60.0%	100.0%	
score	3	Positive	Frequency	3	12	15	
			Percentage	20.0%	80.0%	100.0%	
		Negative	Frequency	4	6	10	
			Percentage	40.0%	60.0%	100.0%	0.270
	4	Positive	Frequency	3	12	15	p=0.378
			Percentage	20.0%	80.0%	100.0%	
		Negative	Frequency	4	7	11	p=0.656
	_ ا		Percentage	33.4%	63.6%	100.0%	
	5	Positive	Frequency	3	11	14	
			Percentage	21.4%	78.6%	100.0%	
	-	Гotal	Frequency	7	18	25	
	Percentage		28.0%	72.0%	100.0%		

Table S6. Correlation between immunotherapy effectiveness and positivity of one or more <u>anti-mouse</u>

cerebellar tissue-derived antigen antibody test, the anti-GAD antibody test, or the anti-TG6 antibody

(IgA class) test.

Positive crit	teria	:		Effect of immunotherapy			
		ody or anti-T	•				Fisher's
(IgA class)	dete	cted or the ant	ti-mouse_	Ineffective	Effective	Total	exact test
cerebellar ti	issue	-derived antig	gen antibody				
test score ex	xcee	ded the refere	nce score.				
		Negative	Frequency	1	1	2	
	1		Percentage	50.0%	50.0%	100.0%	n=0.400
	1	Positive	Frequency	6	17	23	p=0.490
			Percentage	26.1%	73.9%	100.0%	
		Negative	Frequency	6	3	9	
	2		Percentage	66.7%	33.3%	100.0%	p=0.029
	2	Positive	Frequency	1	15	16	
			Percentage	6.3%	93.8%	100.0%	
		Negative	Frequency	6	6	12	
Reference		Positive	Percentage	50.0%	50.0%	100.0%	p=0.030
score	3		Frequency	1	12	13	
			Percentage	7.7%	92.3%	100.0%	
		Negative	Frequency	6	6	12	
			Percentage	50.0%	50.0%	100.0%	0.020
	4	Positive	Frequency	1	12	13	p=0.030
			Percentage	7.7%	92.3%	100.0%	
		Negative Positive	Frequency	6	7	13	p=0.073
			Percentage	46.2%	53.9%	100.0%	
	5		Frequency	1	11	12	
			Percentage	9.3%	91.7%	100.0%	
	7	Гotal	Frequency	7	18	25	
	Percentage		28.0%	72.0%	100.0%		

Table S7. Correlation between <u>anti-mouse cerebellar tissue-derived antigen antibody</u> test and each
 antibody test.

Inspection item	Judgement	Anti-mouse ce	Fisher's exact test	
		Negative	Positive	
Anti-thyroid antibody	Negative	7	5	0.229
Anti-diyroid antibody	Positive	4	9	p=0.238
Anti CAD ontibody	Negative	10	12	n 1 000
Anti-GAD antibody	Positive	1	2	p=1.000
	Negative	8	8	0.677
Anti-gliadin antibody (IgA class)	Positive	3	6	p=0.677
And alledin and hadra (InC. alare)	Negative	7	14	- 0.261
Anti-gliadin antibody (IgG class)	Positive	4	0	p=0.261
A CTCC CLL (LA L	Negative	10	13	1 000
Anti-TG6 antibody (IgA class)	Positive	1	1	p=1.000
A CTCC CLL (CLL)	Negative	11	14	
Anti-TG6 antibody (IgG class)	Positive	0	0	-

²⁷ GAD: glutamic acid decarboxylase, TG6: transglutaminase 6

Positive criteria for <u>anti-mouse cerebellar tissue-derived antigen antibody</u> test: reference score ≥2.