

Supplementary information

Peptidomics of an *in vitro* digested a-Gal carrying protein revealed IgE-reactive peptides

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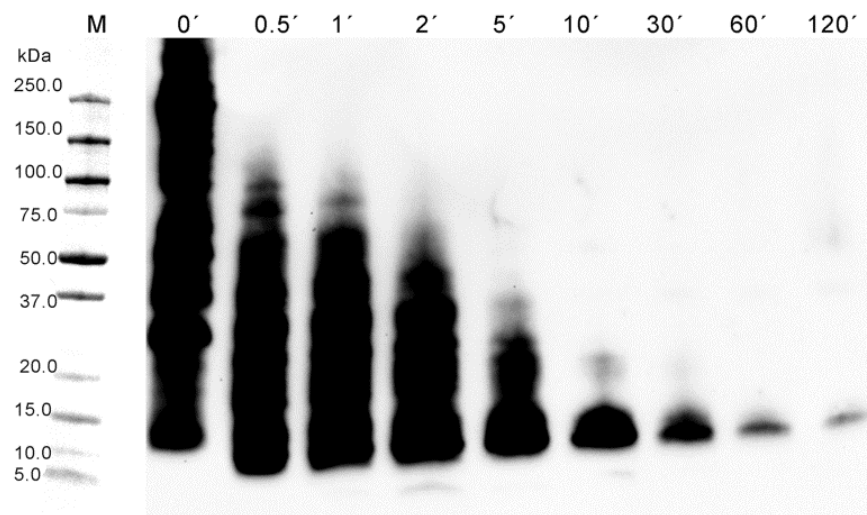
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Figure S1. IgE binding profile of gastric digestion of the bovine thyroglobulin under the physiological conditions.



Tables

Table S1. Serological characteristics of red meat-allergic patients

No	Total	Beef	α -Gal
	IgE (kU _A /l)	IgE (kU _A /l)	IgE (kU _A /l)
1	320	62	100
2	127	2.2	11
3	112	11	32
4	42	0.6	6.4
5	520	8.7	24
6	190	7.2	16
7	210	2.2	6.4
8	49	9.2	16
9	2000	18	79
10	140	4.7	59
11	180	7.4	100
12	120	5.5	23
13	166	1.9	6.3
14	67	2.6	19
15	65	2.6	16
16	80	3.3	22
17	140	3.2	19
18	210	10	30
19	48	1.8	10
20	270	7.2	46
21	217	8.9	>100
22	47	2.1	5.2
23	86	7.9	24
24	207	5.6	42

Table S2. Bovine thyroglobulin immunoreactive peptides identified by MS/MS analysis from 1D PAGE with high confidence

Peptide	Sequence	#PSMs	XCorr	Charge	MH+ [Da]	RT [min]
Mass range 15 - 20 kDa						
1	²⁴⁸⁵ VDLLIGSSQDDGLINR ₂₅₀₁	6	1.66	3	1715.8835	23.68
2	²²⁴⁴ ARCWQPGIR ₂₂₅₂	1	0.79	2	1144.5590	20.04
Mass range 10 - 15 kDa						
3	²²⁹¹ GSGDRPAVDGSFLAAVGNLIVVTASYR ₂₃₁₉	1	4.15	3	2692.4073	39.17
4	²¹³¹ CLWECSR ₂₁₃₇	1	1.65	2	1010.4180	27.36
5	²¹²⁹ DRCLWECSR ₂₁₃₇	1	1.54	2	1281.5469	26.38
6	²⁰²⁰ GGEVTCLTLNSLGLQTCSEELYGGVWR ₂₀₄₅	2	8.51	3	2886.3376	35.44
7	¹⁹⁸¹ NKVPMSDKSISGGFFECER ₁₉₉₉	2	3.01	4	2218.0257	28.64
8	¹⁹⁸⁸ SISGGFFECER ₁₉₉₉	1	2.95	2	1318.5736	30.23
9	¹⁶⁴⁷ SEDALGTSQATSFGLQCQVK ₁₆₆₇	2	6.83	2	2214.0349	30.75
10	¹⁵⁸¹ VIFSADVAVMVR ₁₅₉₂	1	3.98	2	1306.7199	33.22
11	¹³⁷⁹ FADLIQSGTFQLHLDSK ₁₃₉₅	1	3.54	3	1919.9877	33.44
12	¹³³⁷ TAGTPVSI PVCDSSVKVECLSR ₁₃₅₉	6	3.27	3	2477.2020	30.42
13	¹³⁰⁹ GFCQIQVK ₁₃₁₆	1	1.96	2	979.5027	26.86
14	¹³⁰⁵ VCSADYSGLLLAFQVFLLELTAR ₁₃₂₈	2	6.48	3	2701.3937	44.39
15	¹²⁵⁵ SAFPPEPLLCVQR ₁₂₆₈	4	1.95	2	1600.8146	33.36
16	¹¹⁷¹ AEDGGFSPVQC DPAQGSWCVLGSGEEVPGTR ₁₂₀₂	1	7.03	3	3409.4571	33.82
17	⁹⁹⁶ LAAQSTFDYQR ₁₀₀₇	1	1.41	2	1446.7013	31.06
18	⁴¹⁴ ELFLDSGIFQPMQGR ₄₂₉	2	1.61	3	1851.9279	31.19
19	²⁸⁴ FLAVQLVISGR ₂₉₄	1	2.59	2	1202.7255	34.01
20	²¹⁴ FPDAFVTFSSFR ₂₂₈	1	3.01	2	1420.6903	35.59
21	¹⁷⁹ SPPQCS PDGAFRPVQCK ₁₉₅	1	1.67	3	1930.8890	25.66
22	¹⁷¹ LLHGVGDRSPPQCS PDGAFRPVQCK ₁₉₅	1	1.08	5	2778.3555	25.56
23	⁸⁵ QPGRPAACLSFCQLQK ₁₀₀	1	0.57	3	1862.8807	25.36