

# A lipasin/Angptl8 monoclonal antibody lowers mouse serum triglycerides involving increased postprandial activity of the cardiac lipoprotein lipase

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## Supplemental Materials

### Supplementary Figure 1. The peptide library for epitope mapping

1	MAVLALSLLWTLASA	22	GHSLGLYDRALEFLG	43	RDTVRRLLQVQLRGAW
2	LALSLLWTLASAVRP	23	LGLYDRALEFLGTEV	44	VRRLLQVQLRGAWLGQ
3	SLLWTLASAVRPAPV	24	YDRALEFLGTEVRQG	45	LQVQLRGAWLGQAHQ
4	WTLASAVRPAPVAPL	25	ALEFLGTEVRQGQDA	46	QLRGAWLGQAHQEF
5	ASAVRPAPVAPLGGP	26	FLGTEVRQGQDATQE	47	GAWLGQAHQEFETLK
6	VRPAPVAPLGGPEPA	27	TEVRQGQDATQELRT	48	LGQAHQEFETLKARA
7	APVAPLGGPEPAQYE	28	RQGQDATQELRTSLS	49	AHQEFETLKARADKQ
8	APLGGPEPAQYEELT	29	QDATQELRTSLSEIQ	50	EFETLKARADKQSHL
9	GGPEPAQYEELTLLF	30	TQELRTSLSEIQVEE	51	TLKARADKQSHLLWA
10	EPAQYEELTLLFHGA	31	LRTSLSEIQVEEDAL	52	ARADKQSHLLWALTG
11	QYEELTLLFHGALQL	32	SLSEIQVEEDALHLR	53	DKQSHLLWALTGHVQ
12	ELTLLFHGALQLGQA	33	EIQVEEDALHLRAEA	54	SHLLWALTGHVQRQQ
13	LLFHGALQLGQALNG	34	VEEDALHLRAEATAR	55	LWALTGHVQRQQREM
14	HGALQLGQALNGVYR	35	DALHLRAEATARS LG	56	LTGHVQRQQREMAEQ
15	LQLGQALNGVYRATE	36	HLRAEATARS LG EVA	57	HVQRQQREMAEQQW
16	GQALNGVYRATEARL	37	AEATARS LG EVARAQ	58	RQQREMAEQQWLRQ
17	LNGVYRATEARL TEA	38	TARS LG EVARAQ QAL	59	REMAEQQWLRQIQQ
18	VYRATEARL TEAGHS	39	SLGEVARAQ QALRDT	60	AEQQWLRQIQQLRH
19	ATEARL TEAGHSLGL	40	EVARAQ QALRDTVRR	61	QQWLRQIQQLRHTAA
20	ARL TEAGHSLGLYDR	41	RAQQALRDTVRRLLQV	62	LRQIQQLRHTAALPA
21	TEAGHSLGLYDRALE	42	QALRDTVRRLLQVQLR		

### Supplementary Figure 1

A peptide library was generated containing 62 15-amino-acid long peptide with 12 amino-acid overlapping. All cysteines in the peptides were replaced with serines and the peptides were synthesized with N-terminal biotinylation.

**Supplementary table 1. ELISA for recombinant lipasin using the monoclonal antibody AB-2**

	Dilution	AB-2 (A450nm)
1	1:1,000	1.437
2	1:3,000	1.436
3	9,000	1.409
4	27,000	1.327
5	81,000	1.180
	Blank	0.085
The titer: >1:81,000		

Starting dilution: 1:1,000 (equivalent to 1 $\mu$ g/ml)

The titer is the highest dilution with Positive/Blank > 2.1.

ELISA antigen: recombinant lipasin

Coating: 1  $\mu$ g/ml, 100  $\mu$ l/well

Coating buffer: phosphate buffered saline, pH 7.4

Secondary antibody: Goat anti-mouse IgG (H+L), HRP conjugated.

**Supplementary Table 2. ELISA verification of the AB-2 binding peptides**

	28	29	30	31	32	33	34	35
AB-2 0.5 µg/ml	0.055	0.105	<b>1.177</b>	<b>1.148</b>	<b>1.057</b>	<b>0.729</b>	0.093	0.06
AB-2 -0.1 µg/ml	0.056	0.069	<b>0.915</b>	<b>0.851</b>	<b>0.441</b>	<b>0.238</b>	0.063	0.056
AB-2 0.02 µg/ml	0.057	0.058	<b>0.574</b>	<b>0.544</b>	<b>0.183</b>	0.082	0.054	0.053
ControlAb-0.5 µg/ml	0.059	0.063	0.060	0.059	0.061	0.060	0.060	0.059
ControlAb-0.1 µg/ml	0.054	0.058	0.057	0.056	0.056	0.056	0.057	0.055
ControlAb-0.02 µg/ml	0.052	0.056	0.054	0.057	0.054	0.055	0.055	0.058
1×PBS	0.058	0.053	0.052	0.050	0.051	0.052	0.051	0.050