

Table 1. List of peptide sequences common for conventional and organic ham

	Sequence ¹	Protein	Position ²	ACE inhibitor	DPP-IV inhibitor	Stimulating ³	Antioxidant
1	G.LPEALIPVQLL.W ⁴	Sarcoplasmic/endoplasmic reticulum calcium ATPase	[783-793]	IP, EP	LP,LL, IP, AL, LI, PV, QL, VQ	LI, LL	-
2	A.GAGIALNDHFVK.L ⁵	Glyceraldehyde-3-phosphate dehydrogenase	[296-307]	VK, IA, GI, GA, AG, LN	GA, IA, AL, AG, GI, HF, LN, ND, VK	-	-
3	L.PPVVPVSKPGALR.R ⁶	Telethonin	[141-153]	VP, GA, PG, KP, PP, LR	PP, VP, VV, KP, GA, AL, PG, PV, SK, VS	-	KP
4	S.LPVIGLDEILKF.V ⁷	Sarcoplasmic/endoplasmic reticulum calcium ATPase	[975-986]	IG, GL, KF, EI, IL	LP, GL, EI, IL, KF, PV, VI	IL	LK
5	S.LPVIGLDELLKF.I ⁸	Sarcoplasmic/endoplasmic reticulum calcium ATPase	[975-986]	IG, GL, KF	LP, LL, GL, KF, PV, VI	LL	EL, LK
6	E.LPDGQVITIGNER.F ⁹	Actin, alpha skeletal muscle	[244-256]	IG, GQ, DG	LP, NE, QV, TI, VI	-	-
7	F.DAGAGIALNDHFVK.L	Glyceraldehyde-3-phosphate dehydrogenase	[294-307]	VK, IA, GA, GI, AG, DA, LN	GA, IA, AL, AG, GI, HF, LN, ND, VK, DA, HF	-	-
8	N.VDYSKLLKKEGPDF,- ¹⁰	Cytochrome c oxidase subunit NDUFA4	[70-82]	GP, EG, KL, KE, DY, DF	GP, EG, KE, KK, SK, VD, YS	-	LK
9	F.VAEPKESFVKGTVQS.R ¹¹	Myosin-1	[40-54]	VK, KG,GT, SF, KE	VA, EP, AE, ES, KE, KG, PK, QS, SF, TV, VK, VQ	-	-

10	R.VREPVISAVEQTAQR.T	Titin	[438-452]	VR, VE, AV	EP, TA, VR, AV, PV, QT, VE, VI	-	-
11	S.VVDTPEIIHAQQVKN.L ¹²	Nebulin	[6063-6077]	VK, EI, TP	VV, HA, TP, EI, IH, II, QQ, QV, VD, VK	II	-
12	S.VNVDYSKLLKKEGPDF. ¹³	Cytochrome c oxidase subunit NDUFA4	[68-82]	GP, EG, KL, KE, DY, DF	GP, EG, KE, KK, NV, SK, VD, VN, YS	-	LK
13	T.IEPDAVHIKAAKDAYK.V ¹⁵	Nebulin	[5525-5540]	AY, AA, DA(2) ¹⁴ , YK, KA, IE, IEP, AV	KA, EP, AA, AV, AY, HI, VH, YK	-	AY, KD
14	Q.IRKETEKAFVVPKVVIS.A ¹⁶	Titin	[512-527]	IR, VPK, AF, VP, KA, TE, EK, KE, FVP	KA, VP, VV, EK, AF, ET, IR, KE, KV, PK, RK, TE, VI	-	IR
15	I.TKQEYDEAGPSIVHRK.C ¹⁷	Actin, alpha skeletal muscle	[360-375]	GP, AG, EA, EY, AGP	GP, AG, EY, HR, PS, QE, RK, SI, TK, VH, YD	IV	-
16	L.SEIQNIKSELKYVPRA.E ¹⁸	Small muscular protein	[69-84]	PR, VP, RA, YVP, KY, EI, YV	VP, RA, EI, IQ, KS, KY, QN, YV	SE(2)	EL, LK
17	F.TSVVDTPEIIHAQQVKN.L	Nebulin	[6061-6077]	VK, EI, TP	VV, HA, TP, EI, IH, II, QQ, QV, SV, TS, VD, VK	II	-
18	E.EAPPPPAEVHEVHEEVH.E ¹⁹	Troponin T, fast skeletal muscle	[22-38]	AP, EA, EV(3), PP(3), EAP, PPP(3)	PPPP, PP(3), AP, PA, AE,	EE	-

					EV(3), HE(2), VH(3)		
19	M.ARVREPVISAVEQTAQR.T ²⁰	Titin	[436-452]	VR, AR, VE, AV, RVR	EP, TA, VR, AV, PV, QT, VE, VI	-	-
20	H.SSTFDAGAGIALNDHFVKL.I ²¹	Glyceraldehyde-3- phosphate dehydrogenase	[290-308]	VK, IA, GI, GA, AG, DA, KL, LN, TF, ST	GA, IA, AL, AG, GI, HF, LN, ND, TF, VK	-	VKL
21	W.ITKQEYDEAGPSIVHRK.C ²²	Actin, alpha skeletal muscle	[359-375]	GP, AG, EA, EY, AGP	GP, AG, EY, HR, PS, QE, RK, SI, TK, VH, YD	IV	-
22	W.ISKQEYDESGPSIVHRK.C ²³	POTE ankyrin domain family member	[1057-1073]	GP, SG, EY, SGP	GP, ES, EY, HR, PS, QE, RK, SI, SK, VH, YD	IV	-
23	N.FTSVVDTPEIIHAQQVKN.L ²⁴	Nebulin	[6060-6077]	VK, EI, TP	VV, HA, TP, EI, IH, IL, QQ, QV, SV, TS, VD, VK	II	-
24	L.RVAPEEHPTLLTEAPLNPK.A ²⁵	Actin, aortic smooth muscle	[97-115]	VAP, LNP, PL, AP, EA, TE, LN, PTM HP, EAP	VA, AP(2), LL, HP, NP, PL, EH, LN, PK, PT, TE, TL	LL, EE	-
25	M.YKADLKDLSKKGYDLRTD.A ²⁶	Nebulin	[1052-1069]	GY, KG, YK, KA, LR	KA, AD, GY, KG, KK, SK, TD, YD, YK	-	KD, LK
26	G.VGKKAEAVATVVAAVDQARVR.E ²⁷	Titin	[696-716]	VAA, AA, VG, GK, EA, VR,	VA(2), KA, VV, VR, AA, AE, AT, AV(2), DQ,	-	-

				AR, KA, AV(2), RVR	KK, QA, TV, VD, VG		
27	M.WITKQEYDEAGPSIVHRK.C ²⁸	Actin, alpha skeletal muscle	[358- 375]	GP, AG, EA, EY, AGP	GP, WI, AG, EY, HR, PS, QE, RK, SI, TK, VH, YD	IV	-
28	A.AVDMARVREPVISAVEQTAQR.T ²⁹	Titin	[432- 452]	VR, AR, VE, AV, DM, RVR	MA, EP, TA, VR, AV, PV, QT, VD, VE, VI	-	-
29	C.DFPVEAGDKFIEALGHTWHDT.C ³⁰	LIM domain-binding protein	[668- 689]	FP, AG, GH, LG, GD, EA(2), KF, EI, VE, DF	FP, AL, AG, GH, HD, HT, KF, PV, TW, VE, WH	-	TW
30	E.MEKANFTSVVDTPEIIHAQQVKN.L ³¹	Nebulin	[6055- 6077]	VK, NF, KA, EI, ME, EK, TP	KA, VV, HA, TP, EK, EI, IH, II, ME, NF, QQ, QV, SV, TS, VD, VK	II	-
31	R.APPPIAYNPLLSPPFPQAARTLPKAQ.S ³²	Synaptopodin 2-like protein	[807- 832]	FP, LSP, AY, PL, IA, AP, AA, AR, KA, PP(2), PQ, IAY, PPP, YN	PP(2), KA, AP, LP, LL, SP, FP, IA, NP, AA, PL, AY, PF, PI, PK, PQ, QA, TL, YN	LL	AY
32	M.GVDPHQKVELGIDLLAYGAKAELPQYK.S ³³	Myozenin-1	[192- 206]	YG, LAY, AY, LA, GI, GA, GV, LG, QK, YK, KA, VE, PQ, PH, LGI, AEL	KA, LA, LP, LL, GA, AE, AY, DP, GI, GV, KV, PH, PQ, QY, VD, VE, YG, LPQ	LL	AY, EL(2), PHQ

33	N.VKLNEHFLNTSDFLDTIKSNLDRALGRQ. ⁻³⁴	Isocitrate dehydrogenase [NADP], mitochondrial (Fragment)	[394- 421]	VK, RA, GR, LG, KL, LN(2), DF	RA, FL(2), AL, DR, EH, HF, KS, LN(2), NE, NL, NT, TI, TS, VK,	-	SDF, VKL
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¹ sign (.) indicate cutting points

² position in parental protein

³ stimulating vasoactive substance release or glucose uptake stimulating peptide

⁴ other activity: alpha-glucosidase inhibitor – EA; dipeptidyl peptidase III inhibitor – PE

⁵ other activity: dipeptidyl peptidase III inhibitor – HF

⁶ other activity: antiamnesic, antithrombotic, regulating the stomach mucosal membrane activity – PG; alpha-glucosidase inhibitor – PP; dipeptidyl peptidase III inhibitor – HF; renin inhibitor - LR

⁷ other activity: CaMPDE inhibitor, renin inhibitor – KF

⁸ other activity: CaMPDE inhibitor, renin inhibitor – KF

⁹ other activity: neuropeptide – GQ

¹⁰ other activity: antiamnesic, antithrombotic – GP; regulating ion flow – DY; regulating the stomach mucosal membrane activity – GP; bacterial permease ligand – KK;

¹¹ other activity: renin inhibitor – SF

¹² other activity: dipeptidyl peptidase III inhibitor – IH, PE

¹³ other activity: antiamnesic, antithrombotic – GP; regulating ion flow – DY; regulating the stomach mucosal membrane activity – GP; bacterial permease ligand – KK

¹⁴ the number in () indicates the number of identified peptides, if more than one

¹⁵ other activity: dipeptidyl peptidase III inhibitor – YK, DA(2)

¹⁶ other activity: dipeptidyl peptidase III inhibitor – KA; CaMPDE inhibitor and renin inhibitor - IR

¹⁷ other activity: antiamnesic, antithrombotic – GP; regulating the stomach mucosal membrane activity – GP; alpha-glucosidase inhibitor – EA

¹⁸ other activity: activating ubiquitin-mediated proteolysis – RA; dipeptidyl peptidase III inhibitor – PR

¹⁹ other activity: dipeptidyl carboxypeptidase inhibitor – PPPA; alpha-glucosidase inhibitor – EA, PP(3)

²⁰ other activity: dipeptidyl peptidase III inhibitor – RV

²¹ other activity: dipeptidyl peptidase III inhibitor – TF, DA, HF; renin inhibitor – TF

²² other activity: antiamnesic, antithrombotic, regulating the stomach mucosal membrane activity – GP; alpha-glucosidase inhibitor - EA

²³ other activity: antiamnesic, antithrombotic, regulating the stomach mucosal membrane activity – GP

²⁴ other activity: dipeptidyl peptidase III inhibitor – IH, PE; renin inhibitor - FT

²⁵ other activity: dipeptidyl peptidase III inhibitor – RV, HP, PE; alpha-glucosidase inhibitor – EA

²⁶ other activity: dipeptidyl peptidase III inhibitor – LR, YK, KA; renin inhibitor - LR; bacterial permease ligand – KK

²⁷ other activity: dipeptidyl peptidase III inhibitor – RV, KA; bacterial permease ligand - KK; alpha-glucosidase inhibitor – EA

²⁸ other activity: antiamnesic, antithrombotic, regulating the stomach mucosal membrane activity – GP

²⁹ other activity: dipeptidyl peptidase III inhibitor – RV

³⁰ other activity: alpha-glucosidase inhibitor – EA(2); CaMPDE inhibitor and renin inhibitor – KF

³¹other activity: dipeptidyl peptidase III inhibitor – IH, PE, KA; renin inhibitor – FT

³²other activity: dipeptidyl peptidase III inhibitor – PF, KA; alpha-glucosidase inhibitor – PP(2)

³³other activity: dipeptidyl peptidase III inhibitor – YK, LA, YG, KA; immunomodulating - YG; activating ubiquitin-mediated proteolysis – LA

³⁴other activity: dipeptidyl peptidase III inhibitor – HF, FL(2); activating ubiquitin-mediated proteolysis - RA

Table 2. List of peptide sequences common for conventional and organic loins

	Sequence ¹	Protein	Position ²	ACE inhibitor	DPP-IV inhibitor	Stimulating ³	Antioxidant
1	Q.SPLPVIHQK.D	LIM domain-binding protein 3	[98-107]	PLP, PL, IP, QK, PH	LP, IP, SK, PL, PH, PV, VI	-	PHQ
2	G.LPEALIPVQLL.W ⁴	Sarcoplasmic/endoplasmic reticulum calcium ATPase 3 (Fragment)	[11-21]	IP, EA	LP, LL, IP, AL, LI, PV, QL, VQ	LI, LL	
3	K.LPPVVPVSKPGALR.R ⁶	Telethonin	[139-153]	LPP,VP, GA, PG, KP, PP, LR	PP, LP, VP, VV, KP, GA, AL, PG, PV ⁵ , SK, VS	-	KP
4	D.PPDIEFAKKVTNQ.V ⁷	Nebulin	[259-271]	AKK, IE, PP	PP, FA, KK, KV, NQ, TN, VT	-	-
5	K.QLPPVVPVSKPGALR.R ⁸	Telethonin	[139-153]	LPP,VP, GA, PG, KP, PP,LR	PP, LP,VP, VV, KP, GA, AL, PG, PV(2), QL, SK, VS	-	KP
6	P.PPPAEVHEVHEEVH.E ⁹	Troponin T, fast skeletal muscle	[25-38]	EV(3), PP(2), PPP	PP(2), PA, AE, EV(3), HE(2), VH(3)	EE	KP
7	F.VAEPKESFVKGTVQS.R ¹⁰	Myosin-1	[40-54]	VK, KG, GT, SF, KE	VA, EP, AE, ES, KE, KG, PK, QS, SF, TV, VK, VQ	-	-
8	A.RNATDIASQIKYKQ.S ¹¹	Nebulin	[6038-6051]	IA, KY, YK, IKY	IA, AS, AT, KY, NA, QI, RN, TD, YK	-	-

9	Q.MPKFDLGPLLSEPLV.L ¹²	Myozenin-1	[240-254]	GPL, LGP, GP, PL(2), LG, KF, DLGP	GP, ML, LL, EP, PL(2), KF, LV, PK,	LV, LL, SE	-
10	E.TVFEKPKAGPAKSVFG.- ¹³	Musculoskeletal embryonic nuclear protein 1	[67-82]	GPA, VF, GP, AG, FG, KA, KP, EK, AGP	GP, KA, PA, KP, GPA, EK, AG, KS, PK, SV, TV, VK(2)	-	KP
11	R.VREPVISAVEQTAQR.T	Titin	[438-452]	VR, VE, AV	EP, TA, VR, AV, PV, QT, VE, VI	-	-
12	S.VVDTPEIIHAQQVKN.L ¹⁴	Nebulin	[6063-6077]	VK, EI, TP	VV, HA, TP, EI, IH, II, QQ, QV, VD, VK, IH	II	-
13	R.ARNATDIASQIKYKQ.S ¹⁵	Nebulin	[6037-6051]	IA, KY, YK, AR, IKY	IA, AS, AT, KY, NA, QI, RN, TD, YK	-	-
14	T.IEPDAVHIKAAKDAYK.V ¹⁶	Nebulin	[5525-5540]	AY, AA, DA(2), YK, KA, IE, IEP, AV	KA, EP, AA, AV, AY, HI, VH, YK	-	AY, KD
15	E.APPPPAEVHEVHEEVH.E ¹⁷	Troponin T, fast skeletal muscle	[28-38]	AP, EV(3), PP(3), PPP(2)	PPPP, PP(3), AP, PA, AE, EV(3), HE(2), VH(3)	EE	-
16	Q.IRKETEKAFVPKVVIS.A ¹⁸	Titin	[512-527]	IR, VPK, AF, VP, KA, TE, EK, KE, FVP	KA, VP, VV, EK, AF, ET, IR, KE, KV, PK, RK, TE, VI	-	IR
17	H.SSTFDAGAGIALNDHFVK.L ¹⁹	Glyceraldehyde-3-phosphate dehydrogenase	[290-307]	VK, IA, GI, GA, AG(2), DA, LN, TF, ST	GA, AL., IA, AG(2); GI, HF, LN, ND, TF, VK,	-	-
18	C.TIEPDAVHIKAAKDAYK.V ²⁰	Nebulin	[5524-5540]	AY, AA, DA(2), YK, KA, IE, IEP, AV	KA, EP, AA, AV, AY, HI, TI, VH, YK	-	AY, KD

19	F.TSVVDTPEIIHAQQVKN.L ²¹	Nebulin	[6061-6077]	VK, EI, TP	VV, HA, TP, EI, IH, II, QQ, QV, SV, TS, VD, VK	II	-
20	H.AVPDTPQILLAKTVSNLV.S ²²	Nebulin	[5630-5647]	AVP, LA, VP, PQ, AV, TP, IL	LA, VP, LL, TP, AV, IL, KT, LV, NL,PQ, QI, TV, VS	LV, IL, LL	-
21	G.KGVLKAVEHINKTLGPAL.L ²³	Beta-enolase	[60-77]	GPA, LGP, GP, LKA, KG, GV, LG, NK, AK, VE, AV	GP, KA, PA, GPA, AL, AV, EH, GV, HI, IN, KG, KT, TL, VE, VL	VL	LK
22	L.KVSILAAIDEASKKLNAQ. ⁻²⁴	Apolipoprotein A-I	[248-265]	LAA, LA, AA, EA, KL, LN, AI, IL	LA, AA, AS, IL, KK, KV, LN, NA, SI, SK, VS	IL	-
23	E.EAPPPPAEVHEVHEEVH.E ²⁵	Troponin T, fast skeletal muscle	[22-38]	AP, EA, EV(3), PP(3), EAP, PPP(2),	PPPP, PP(3), AP, PA, AE, EV(3), HE(2), VH(3)	EE	-
24	M.ARVPREVISAVEQTAQR.T ²⁶	Titin	[436-452]	VR, AR, VE, AV, RVR	EP, TA, VR, AV, PV, QT, VE, VI	-	-
25	E.KAKDIEHAKKVSQQVSK.V ²⁷	Nebulin	[153-169]	AKK, KA, IE	KA, HA, EH, KK, KV, QQ, QV, SK, VS(2)	-	KD
26	T.IETRDGEVVSEATQQQH.E ²⁸	Desmin	[451-467]	GE, EA, DG, IE, EV, TQ	VV, AT, ET, EV, GE, QH, QQ(2),TQ, TR, VS	-	SE
27	S.SPVFPRAGFGTKGSSSSVTS.R ²⁹	Desmin	[32-51]	VF, FP, PR, RA, GF, AG, KG, FG, GS, GT	SP, FP, RA, AG, GF, KG, PV, SV, TK, TS, VF, VT	SSS(2)	-
28	R.VAPEEHPTLLTEAPLNPK.A ³⁰	Actin, alpha skeletal muscle	[98-115]	VAP, LNP, PL, AP(2), EA, TE, LN, PT, HP, EAP	VA, AP(2), LL, HP, NP, PL, EH, LN, LT, PK, PT, TE, TL	LL, EE	-

29	G.DWRKNIEEKSGMEGRK.K	Troponin T, fast skeletal muscle	[160-175]	GM, GR, SG, EG, IE, ME, EK	EK, WRK, WR, EG, KS, ME, RK	EE	-
30	H.SSTFDAGAGIALNDHFVKL.I ³¹	Glyceraldehyde-3-phosphate dehydrogenase	[290-308]	VK, IA, GI, GA, AG(2), DA, KL, LN, TF, ST	GA, IA, AL, AG, GI, HF, LN, ND, TF, VK	-	VKL
31	T.RTTPTMKELQMMVEHH.L	Protein phosphatase 1 regulatory subunit	[76-91]	VE, LQ, PT, KE, TP, MM	TP, EH, HH, KE, MK, MM, MV, PT, TM, TT, VE	-	HH, EL, EHH, MM
32	W.ITKQEYDEAGPSIVHRK.C ³²	Actin, alpha skeletal muscle	[359-375]	GP, AG, EA, EY, AGP	GP, AG, EY, HR, PS, QE, RK, SI, TK, VH, YD	IV	-
33	K.MAPNIPEMELPGVKIVH.A ³³	PDZ and LIM domain protein	[169-186]	LPG, PL, VK, IP, AP, GV, PG, ME, MAP	MA, AP, LP, IP, PL, GV, KI, ME, PG, PN, VH, VK	IV	EL
34	N.FTSVVDTPETIIHAQQVKN.L ³⁴	Nebilin	[6060-6077]	VK, EI, TP	VV, HA, TP, EI, IH, II, QQ, QV, SV, TS, VD, VK,	II	-
35	K.TIETRDGEVVSEATQQQH.E ³⁵	Desmin	[450-467]	GE, EA, DG, IE, EV, TQ	VV, AT, ET, EV, GE, QH, QQ, TI, TQ, TR, VS	SE	-
36	N.NEKEYKRDLELEVKGRG.N ³⁶	Nebulin	[6007-6023]	VK, KR, GR, KG, YK, EY, EV, EK, KE, RG	EK, EV, EY, KE, KG, KR, NE, RG, VK, YK	-	EL
37	G.DWRKNIEEKSGMEGRKK.M ³⁷	Troponin T, fast skeletal muscle	[160-176]	GM, GR, SG, EG, IE, ME, EK	EK, WRK, WR, EG, KK, KS, ME, RK(2)	EE	-
38	H.EQIRKETEKAFVVPKVVIS.A ³⁸	Titin	[510-527]	IR, VPK, AF, VP, KA, TE, EK, KE, FVP	KA, VP, VV, EK, AF, ET, IR, KE, KV, PK, QI, RK, TE, VI		IR

39	L.RVAPEEHPTLLTEAPLNPK.A ³⁹	Actin, alpha skeletal muscle	[97-115]	VAP, LNP, PL, AP(2), EA, TE, LN, PT, HP, EAP	VA, AP(2), LL, HP, NP, PL, EH, LN, LT, PK, PT, TE, TL	LL, EE	-
40	M.YKADLKDLSKKGYDLRTD.A ⁴⁰	Nebulin	[1052-1067]	GY, KG, YK, KA, LR	KA, AD, GY, KG, KK, SK, TD, YD, YK	-	KD, LK
41	G.VGKKAEEAVATVVAAVDQARVR.E ⁴¹	Titin	[696-716]	VAA, AA, VG, GK, EA, VR, AR, KA, AV(2), RVR	VA(2), KA, VV, VR, AA, AE, AT, AV(2), DQ, KK, QA, TV, VD, VG	-	-
42	M.WITKQEYDEAGPSIVHRK.C ⁴²	Actin, alpha skeletal muscle	[358-375]	GP, AG, EA, EY, AGP	GP, WI, AG, EY, HR, PS, QE, RK, SI, TK, VH, YD	IV	
43	Q.SGKEYRKDYEESIKGRNL.T ⁴³	Nebulin	[5933-5950]	GR, KR, GK, SG, EY, KE, DY, YE	ES, EY, KE, KG, NL, RK, RN, SI, YE, YR	EE	KD
44	Q.SGKEYRKDYEESIKGRNLTG.L ⁴⁴	Nebulin	[5933-5952]	GR, KG, GK, SG, TG, EY, KE, DY, YE	ES, EY, KE, KG, LT, NL, RK, RN, SI, TG, YE, YR	EE	KD
45	C.HVDEKAKDIEHAKKVSQQVSK.V ⁴⁵	Nebulin	[149-169]	AKK, KA, IE, EK, KD	KA, HA, EK, EH, HV, KK, KV, QQ, QV, SK, VD, VS(2)	-	KD
46	F.GGAPSFLGSPVFPFRAGFGTK.G ⁴⁶	Desmin	[19-43]	VF, FP(2), PR, PLG, PL(2), AP, RA, GF, GA, AG, FG, GS, GT, GG, LG, SF	AP, SP(2), FP(2), GA, RA, PL(2), AG, GF, GG, PS, PV, SF, TK, VF	-	-
47	L.FVTNDAATILRELEVQHPAAKM.I ⁴⁷	T-complex protein 1 subunit theta	[64-85]	AA(2), DA, EV, HP, IL, LR	PA, HP, AA(2), AT, EV, IL, ND, QH, TI, TN, VQ, VT	IL	EL

48	L.KPRPPPPPPAPPKEDVKEKIFQ.L ⁴⁸	Titin	[11805-11826]	PR, VK, RP, AP, IF, PAP, PPK, KP, PP(6), EK, KE(2), PAPPK, RPP, FQ, PPP(4)	PPPP(4); PP(6), AP, PA, RP, KP, EK, FQ, KE(2), KI, PK, VK	-	KP
49	M.RFLGDEETVRKAMEAVAAQGKAK.. ⁴⁹	Phosphoglycerate mutase 2	[231-253]	RF, VAA, AA, GK, QG, LG, GD, EA, VR, KA(2), ME, AV	VA, KA, FL, VR, AA, AV, ET, ME, QG, RK, TV	EE	-
50	L.SSPVFPFRAGFGTKGSSSSVTSRVYQ.V ⁵⁰	Desmin	[31-55]	VF, VY, FP, PR, RA, GF, AG, KG, FG, GS, GT, RVY	SP, FP, RA, AG, GF, KG, PV, SV, TK, TS, VF, VT, VY, YQ	SSS(2)	VY
51	E.MEKANFTSVVDTPPEIIHAQQVKN.L ⁵¹	Nebulin	[6055-6077]	VK, NF, KA, EI, ME, EK, TP	KA, VV, HA, TP, EK, EI, IH, II, ME, NF, QQ, QV, SV, TS, VD, VK	II	-
52	R.APPPIAYNPLLSPPFPQAARTLPK.A ⁵²	Synaptopodin 2-like protein	[807-830]	FP, LSP, AY, PL, IA, AP, AA, AR, PP(2), PQ, IAY, PPP, YN	PP(2), AP, LP, LL, SP, FP, IA, NP, AA, PL, AY, PF, PI, PK, PQ, QA, TL, YN	LL	AY
53	STGEALVQGLMGAAVTLKNLTGLNQRR ⁵³	Ubiquinone biosynthesis protein COQ9	[292-318]	AA, GA, GL(2), MG, GE, QG, TG(2), EA, RR, LN, AV, LVQ, ST	GA, AL, GL(2), AA, AV, GE, LM, LN, LT, LV, MG, NL, NQ, QG, RR, TG(2), TL, VQ, VT	LV	LK, GAA
54	SWYDNEFGYSNRVVDLMVHMASKE ⁵⁴	Glyceraldehyde-3-phosphate dehydrogenase	[314-321]	GY, FG, KE	MA VV, WY, AS, DN, GY, KE, LM, MV, NE, NR, SK, SW, VD, VH, YD, YS	-	WY
55	Y.MLTDRENQSILITGESGAGKTVNTRKRVIQ.Y ⁵⁵	Myosin-6	[164-192]	KR, GA, AG, GK, GE, SC, TG, IL	GA, AG, DR, ES, GE, IL, IQ, KR, KT, LI, LT, ML, NQ,	IL, LI	-

					NT, QS, SI, TD, TG, TK, TV, VI, VN		
56	F.SSVLYKEDVSPGTAIGKTPEM <u>MR</u> VKQT QDH.I + Oxidation (M) ⁵⁶	Nebulin	[6150- 6179]	LV, VSP, VK, IG, GK, GT, PG, YK, TQ, KE, AI, VLY, TP, MM	TP, SP, TA, KE, KT, MM, MR, PG, QD, QT, SV, TQ, VK, VL, VS, YK	VL	LY, MM
57	F.SKPLYTEDWEADKSLFYNDSPELRR VAQAQK.A ⁵⁷	Nebulin	[203- 235]	LY, LF, FY, YP, EA, QK, KL, RR, TE, YN, LR	VA, SP, YP, SL, YPY, WE, YT, AD, KK, KS, ND, PY, QA, RR, SK, TE, YN	-	LY, EL, PEL
58	V.TPALLHVKYA.T ⁵⁸	Nebulin	[5956- 5965]	VK, YA, KY, TP	PA, LL, TP, AL, HV, AY,	LL	LH, LHV
59	A.GIALNDHFVK.L ⁵⁹	Glyceraldehyde-3- phosphate dehydrogenase	[298- 307]	VK, IA, GI, LN	IA, AL, GI, HF, LN, ND, VK		
60	E.VTPALLHVKYA.T ⁶⁰	Nebulin	[5955- 5965]	VK, YA, KY, TP	PA, LL, TP, AL, HV, KY, LH, VK, VT, YA	LL	LH, LHV
61	E.EVIEVKVPAVH.T	Titin	[10153- 10163]	VK, VP, IE, EV(2), AV	PA, VP, AV, EV(2), KV, VH, VI, VK	-	VKV
62	T.MEKAGAHLKGGAK.R ⁶¹	Glyceraldehyde-3- phosphate dehydrogenase	[103- 115]	GA(2), AG, HL, KG, GG, KA, AH, ME, EK	KA, GA(2), HL, EK, AG, AH, GG, KG, ME	-	HL, AH, GAH, LK
63	G.DAIPITAAKASRNIA.S ⁶²	Nebulin	[1313- 1327]	AIP, IA, IP, AA, DA, KA, AJ	IPI, KA, IP, IA, TA, AA, AS, PI, RN	-	-
64	Q.SIVKYKEKYEKE.R ⁶³	Nebulin	[5898- 5909]	VK, KY(2), YK, EK(2), KE(2), YE	EK(2), KE(2), KY(2), SI, VK, YE, YK	IV	-

65	G.DWRKNIEEKSGMEG.R	Troponin I, fast skeletal muscle	[160-173]	GM, SG, EG, IE, ME, EK	EK, WRK, WR, EG, KS, ME, RK	EE	-
66	G.SPLSSPVFPRAGFGTKG.S ⁶⁴	Desmin	[28-44]	VF, FP, PR, PL, RA, GF, AG, KG, FG, GT	SP(2), FP, RA, PL, AG, GF, KG, PV, TK, VF	-	-
67	M.GVNHEKYDNSLKIVSN.A	Glyceraldehyde-3-phosphate dehydrogenase	[136-147]	GV, KY, EK	EK, SL, DN, GV, HE, KI, KY, NH, VN, VS, YD	IV	LK
68	A.RVREPVISAVEQTAQR.T ⁶⁵	Titin	[437-452]	VR, VE, AV, RVR	EP, TA, VR, AV, PV, QT, VE, VI	-	-
69	Q.SLQDDPKLVHYMNVAK.I	Nebulin	[1104-1119]	HY, KL, LQ	VA, SL, DP, HY, LV, MN, NV, PK, QD, VH, YM	LV	-
70	G.DEETVRKAMEAVAAQGKAK.- ⁶⁶	Phosphoglycerate mutase	[235-253]	VAA, AA, GK, QG, EA, VR, KA(2), ME, AV	VA, KA(2), VR, AA, AV, ET, ME, QG, RK, TV	EE	-
71	L.MRIIEALGDKAVFAGRKF.R ⁶⁷	Beta-elonase	[411-428]	VF, AG, GR, LG, GD, EA, KF, KA, IE, AV	KA, FA, AL, AG, AV, KF, MR, RI, RK, VF	EE	-
72	G.FQSLQDDPKLVHYMNVAK.I	Nebulin	[1102-1119]	HY, KL, LQ, FQ	VA, SL, DP, FQ, HY, LV, MN, NV, PK, QD, QS, VH, YM	LV	-
73	S.HEQIRKETEKAFVPKVVIS.A ⁶⁸	Titin	[509-527]	IR, VPK, AF, VP, KA, TE, EK, KE	KA, VP, VV, EK, AF, ET, HE, IR, KE, KV, PK, QI, RK, TE, VI	-	FVP
74	L.ESKHPGDFGADAQGAMSKALEL.F ⁶⁹	Myoglobin	[117-137]	GA(2), FG, DA, QG, GD, PG, KA, HP, DF, DFG	KA, HP, GA(2), AL, AD, ES, KH, PG, QG, SK(2)	-	EL

75	E.DNPKSLKSGDAAIVEMVPGKPM.C ⁷⁰	Elongation factor 1-alpha 2	[389-910]	GKP, VP, AA, DA, GK, SG, GD, PG, KP, VE, AI	VP, KP, NP, SL, AA, DN, KS(2), MV, PG, PK, PM, VE	IV	LK, KP
76	G.SPLSSPVFPRAGFGTKGSSSSVTSRVYQ.V ⁷¹	Desmin	[28-55]	VF, VY, FP, PR, PL, RA, GF, AG, KG, FG, GS, GT, RVY	SP(2), FP, RA, PL, AG, GF, KG, PV, SV, TK, TS, VF, VT, VY, YQ	SSS(2)	VY
77	D.DEEKKPIPGAKKLPGPAVNLSEIQNIK.S ⁷²	Small muscular protein	[49-75]	GPA, AKK, LPG, GP, IP, GA, PG, KL, KP, EI, EK, AV	GP, PA, LP, IP, KP, GPA, GA, EK, AV, EI, IQ, KK(2), NL, PG(2), PI, QN, VN	EE, SE	KP
78	G.TVPVGRVETGILRPGMVVTFAPVNITTEVKS.V ⁷³	Elongation factor 1-alpha 2	[261-292]	FAP, LRP, VK, RP, AP, VP, VG, GI, GM, GR, TG, PG, ITT, EV, VE, TE, TF, GILRP, IL, LR	FA, AP, VP, VV, RP, ET, EV, GI, IL, KS, MV, PG, PV(2), TE, TF, TG, TT, TV, VE, VG, VK, VN, VT	IL	-
79	S.SYRRTFGGAPSFPLGSPLSSPVFPRAGFGTKG.S ⁷⁴	Desmin	[13-44]	VF, FP(2), PR, PLG, PL(2), AP, RA, GF, GA, AG, KG, FG(2), GS, GT, GG, LG, SY, SF, RR, TF	AP, SP(2), FP(2), GA, RA, PL(2), AG, GF, GG, KG, PS, PV, RR, SF, SY, TF, TK, VF, YR	-	-
80	L.PGVKIVHA.Q ⁷⁵	PDZ and LIM domain protein 3	[181-188]	VK, GV, PG	HA, GV, KI, PG, VH, VK	IV	-
81	E.YDEAGPSIVH.R ⁷⁶	Actin, alpha skeletal muscle	[363-373]	GP, AG, EA, AGP	GP, AG, PS, SI, VH, YD	IV	-
82	F.DLGPLLSEPLVL.V ⁷⁷	Myozenin-1	[244-255]	LVL, GPL, LGP, GP, PL(2), LG, DLGP	GP, LL, EP, PL(2), LV, VL	VL, LV, LL, SE	-
83	K.ERDLRDVGDWRK.N ⁷⁸	Troponin I, fast skeletal muscle	[152-163]	VG, GD, LR	WRK, WR, RK, VG	-	-

84	I.PDLPEVKRVKETQKH.I ⁷⁹	Nebulin	[6196-6210]	DLP, VK(2), KR, QK, EV, TQ, KE	LP, ET, EV, KE, KH, KR, TQ, VK(2)	-	-
85	K.SEKERIEAQNKPFDAK.T ⁸⁰	Myosin-8	[22-37]	DA, EA, NK, KP, IE, EK, KE	KP, EK, KE, PF, QN, RI	SE	KP
86	GQKDSYVGDEAQSKRGILT ⁸¹			KR, VG, GI, GQ, GD, EA, QK, SY, YV, IL, RG	GI, IL, KR, LT, QS, RG, SK, SY, VG, YV	IL	KD, YVGD
87	N.KPEDEADEWARRSSLQS.R ⁸²	LIM domain-binding protein 3	[255-272]	EA, RR, AR, KP, LQ, EW, WA	KP, WA, AD, EW, NL, QS, RR	-	KP
88	Q.NKPEDEADEWARRSSLQ.S ⁸³	LIM domain-binding protein 3	[254-271]	EA, NK, RR, AR, KP, LQ, EW, WA	KP, WA, AD, EW, NL, RR	-	KP
89	V.GDWRKNIEEKSGMEGRKK.M ⁸⁴	Troponin I, fast skeletal muscle	[159-176]	GM, GR, SG, GD, EG, IE, ME, EK	EK, WRK, WR, EG, KK, KS, ME, RK(2)	EE	-
90	Q.NKPEDEADEWARRSSLQSR.S ⁸⁵	LIM domain-binding protein 3	[254-273]	EA, NK, RR, AR, KP, LQ, EW, WA	KP, WA, AD, EW, NL, QS, RR	-	KP
91	M.RIEEALGDKAVFAGRKFRNPKAK.- ⁸⁶	Beta-elonase	[412-434]	VF, FR, AG, GR, LG, GD, EA, KF, KA(2), IE, AV	KA(2), FA, NP, AL, AG, AV, FR, KF, PK, RI, RK, RN, VF	EE	-
92	M.ANETPDFMRARNATDIASQIKYKQ.S + Oxidation (M) ⁸⁷	Nebulin	[6028-6051]	IA, RA, KY, YK, AR, IKY, TP, DF	TP, IA, RA, AS, AT, ET, KY, MR, NA, NE, QI, RN, TD, YK	-	-
93	Q.SPLPVIPH.Q	LIM domain-binding protein 3	[98-105]	PLP, PL, IP, PH	LP, IP, SP, PL, PH, PV, VI	-	-

¹ sign (.) indicate cutting points

² position in parental protein

³ Stimulating vasoactive substance release or glucose uptake stimulating peptide

⁴other activity: dipeptidyl peptidase III inhibitor- PE; alpha-glucosidase inhibitor – EA

⁵ the number in () indicates the number of identified peptides, if more than one

- ⁶ other activity: dipeptidyl peptidase III inhibitor - LP, anti-amnestic (PEP inhibitor - LPPV, Prolyl endopeptidase inhibitor - PG; antithrombotic and peptide regulating the stomach mucosal membrane activity - PG; alpha-glucosidase inhibitor - PP; renin inhibitor - LR
- ⁷ other activity: dipeptidyl peptidase III inhibitor - FA; bacterial permease ligand - KK; hypolipidemic - EF; alpha-glucosidase inhibitor - PP; CaMPDE inhibitor and renin inhibitor - EF
- ⁸ other activity: dipeptidyl peptidase III inhibitor - LR; anti-amnestic (PEP inhibitor - LPPV, Prolyl endopeptidase inhibitor - PG; antithrombotic, peptide regulating the stomach mucosal membrane activity - PG; alpha-glucosidase inhibitor - PP; renin inhibitor - LR
- ⁹ other activity: dipeptidyl carboxypeptidase inhibitor - PPPA; alpha-glucosidase inhibitor - PP(2)
- ¹⁰ other activity: rennin inhibitor - SF;
- ¹¹ other activity: dipeptidyl peptidase III inhibitor - YK
- ¹² other activity: anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and regulating - GP; CaMPDE inhibitor and renin inhibitor - KF
- ¹³ other activity: dipeptidyl peptidase III inhibitor - KA; anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and regulating - GP
- ¹⁴ other activity: dipeptidyl peptidase III inhibitor - PE
- ¹⁵ other activity: dipeptidyl peptidase III inhibitor - YK
- ¹⁶ other activity: dipeptidyl peptidase III inhibitor - YK, DA(2)
- ¹⁷ other activity: dipeptidyl carboxypeptidase inhibitor - PPPA, alpha-glucosidase inhibitor - PP(3)
- ¹⁸ other activity: dipeptidyl peptidase III inhibitor - KA, CaMPDE inhibitor and renin inhibitor - IR
- ¹⁹ other activity: dipeptidyl peptidase III inhibitor - TF, DA, HF, renin inhibitor - TF
- ²⁰ other activity: dipeptidyl peptidase III inhibitor - YK, DA(2), KA
- ²¹ other activity: dipeptidyl peptidase III inhibitor - IH, PE
- ²² other activity: dipeptidyl peptidase III inhibitor and activating ubiquitin-mediated proteolysis - LA
- ²³ other activity: dipeptidyl peptidase III inhibitor - KA; anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and peptide regulating the stomach mucosal membrane activity - GP
- ²⁴ other activity: dipeptidyl peptidase III inhibitor and activating ubiquitin-mediated proteolysis - LA; bacterial permease ligand - KK; alpha-glucosidase inhibitor - EA
- ²⁵ other activity: alpha-glucosidase inhibitor - EA, PP(3); dipeptidyl carboxypeptidase inhibitor - PPPA
- ²⁶ other activity: dipeptidyl peptidase III inhibitor - RV
- ²⁷ other activity: dipeptidyl peptidase III inhibitor - KA; bacterial permease ligand - KK
- ²⁸ other activity: dipeptidyl peptidase III inhibitor - GE; alpha-glucosidase inhibitor - EA
- ²⁹ other activity: dipeptidyl peptidase III inhibitor - GF, PR; activating ubiquitin-mediated proteolysis - RA
- ³⁰ other activity: dipeptidyl peptidase III inhibitor - HP, PE; alpha-glucosidase inhibitor - EA
- ³¹ other activity: dipeptidyl peptidase III inhibitor - TF, DA, HF; renin inhibitor - TF
- ³² other activity: anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and regulating the stomach mucosal membrane activity - GP; alpha-glucosidase inhibitor - EA
- ³³ other activity: anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and peptide regulating the stomach mucosal membrane activity - PG
- ³⁴ other activity: dipeptidyl peptidase III inhibitor - IH, PE; renin inhibitor - FT
- ³⁵ other activity: dipeptidyl peptidase III inhibitor - GE, alpha-glucosidase inhibitor - EA
- ³⁶ other activity: dipeptidyl peptidase III inhibitor - YK
- ³⁷ other activity: bacterial permease ligand - KK
- ³⁸ other activity: dipeptidyl peptidase III inhibitor - KA, CaMPDE inhibitor and renin inhibitor - IR
- ³⁹ other activity: dipeptidyl peptidase III inhibitor - RV, HP, PE; alpha-glucosidase inhibitor - EA

- ⁴⁰ other activity: dipeptidyl peptidase III inhibitor – LR, YK, KA; bacterial permease ligand – KK
- ⁴¹ other activity: dipeptidyl peptidase III inhibitor – RV, KA; bacterial permease ligand – KK; alpha-glucosidase inhibitor - EA
- ⁴² other activity: anti-amnestic (prolyl endopeptidase inhibitor) , antithrombotic and peptide regulating the stomach mucosal membrane activity - GP
- ⁴³ other activity: dipeptidyl peptidase III inhibitor and neuropeptide (Kyotorphin) – YR; peptide regulating ion flow - DY
- ⁴⁴ other activity: dipeptidyl peptidase III inhibitor and neuropeptide (Kyotorphin) - YR; peptide regulating ion flow - DY
- ⁴⁵ other activity: dipeptidyl peptidase III inhibitor – KA; bacterial permease ligand – KK
- ⁴⁶ other activity: dipeptidyl peptidase III inhibitor – GF, PR; activating ubiquitin-mediated proteolysis - RA; opioid(gliadin 1 exorphin) – PLG; renin inhibitor – SF;
- ⁴⁷ other activity: dipeptidyl peptidase III inhibitor – LR, DA, HP; renin inhibitor – LR
- ⁴⁸ other activity: dipeptidyl peptidase III inhibitor - PR; antithrombotic - PPK; dipeptidyl carboxypeptidase inhibitor – PPPA, PPAP; alpha-glucosidase inhibitor - PP(6)
- ⁴⁹ other activity: dipeptidyl peptidase III inhibitor – RF, FL, KA(2); antithrombotic - DEE; alpha-glucosidase inhibitor - EA
- ⁵⁰ other activity: dipeptidyl peptidase III inhibitor – GF, PR, RV, VY; activating ubiquitin-mediated proteolysis – RA
- ⁵¹ other activity: dipeptidyl peptidase III inhibitor – IH, PE, KA; renin inhibitor – FT
- ⁵² other activity: dipeptidyl peptidase III inhibitor – PF; alpha-glucosidase inhibitor – PP(2)
- ⁵³ other activity: dipeptidyl peptidase III inhibitor – RR, GE; alpha-glucosidase inhibitor – EA
- ⁵⁴ other activity: dipeptidyl peptidase III inhibitor – RV; CaMPDE inhibitor and hypolipidemic – EF; renin inhibitor – EF, NR
- ⁵⁵ other activity: dipeptidyl peptidase III inhibitor – GE, RV
- ⁵⁶ other activity: dipeptidyl peptidase III inhibitor – GE, RV; renin inhibitor – LY; peptide regulating the stomach mucosal membrane activity - PG
- ⁵⁷ other activity: dipeptidyl peptidase III inhibitor – LR, RR, RV, PE; renin inhibitor – LR, LY; bacterial permease ligand – KK; alpha-glucosidase inhibitor - YP, YPY, EA
- ⁵⁸ other activity; renin inhibitor – YA
- ⁵⁹ other activity: dipeptidyl peptidase III inhibitor – HF
- ⁶⁰ other activity; renin inhibitor – YA
- ⁶¹ other activity: dipeptidyl peptidase III inhibitor – HL, KA
- ⁶² other activity: dipeptidyl peptidase III inhibitor – DA, KA
- ⁶³ other activity: dipeptidyl peptidase III inhibitor – YK
- ⁶⁴ other activity: dipeptidyl peptidase III inhibitor – GF, PR; activating ubiquitin-mediated proteolysis - RA
- ⁶⁵ other activity: dipeptidyl peptidase III inhibitor – RV
- ⁶⁶ other activity: dipeptidyl peptidase III inhibitor – KA(2), antithrombotic - DEE, alpha-glucosidase inhibitor - EA
- ⁶⁷ other activity: dipeptidyl peptidase III inhibitor – KA, MR, FA; CaMPDE inhibitor and renin inhibitor – KF; alpha-glucosidase inhibitor - EA
- ⁶⁸ other activity: dipeptidyl peptidase III inhibitor – KA; CaMPDE inhibitor and renin inhibitor – IR
- ⁶⁹ other activity: dipeptidyl peptidase III inhibitor – DA, HP, KA; anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and peptide regulating the stomach mucosal membrane activity – PG
- ⁷⁰ other activity: dipeptidyl peptidase III inhibitor – DA; anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and peptide regulating the stomach mucosal membrane activity – PG
- ⁷¹ other activity: dipeptidyl peptidase III inhibitor – GF, PR, RV, VY; activating ubiquitin-mediated proteolysis - RA
- ⁷² other activity: anti-amnestic (prolyl endopeptidase inhibitor) – PGP, PG(2), GP; antithrombotic – GP, PGP, PG(2), DEE; peptide regulating the stomach mucosal membrane activity – GP, PG(2), PGP; bacterial permease ligand – KK; inhibitor of insulin secretion and chemotactic – PGP;
- ⁷³ other activity: dipeptidyl peptidase III inhibitor – LR, TF, RV, FA; anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and peptide regulating the stomach mucosal membrane activity – PG; renin inhibitor - LR, TF

- ⁷⁴ other activity: dipeptidyl peptidase III inhibitor – YR, RR, TF, GF, PR; activating ubiquitin-mediated proteolysis - RA, opioid (gliadin 1 exorphin) – PLG; neuropeptide (Kyotorphin) – YR; renin inhibitor – SF, TF
- ⁷⁵ other activity: anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and peptide regulating the stomach mucosal membrane activity – GP
- ⁷⁶ other activity: anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and peptide regulating the stomach mucosal membrane activity – GP
- ⁷⁷ other activity: anti-amnestic (prolyl endopeptidase inhibitor), antithrombotic and peptide regulating the stomach mucosal membrane activity – GP
- ⁷⁸ other activity: dipeptidyl peptidase III inhibitor and renin inhibitor – LR
- ⁷⁹ other activity: dipeptidyl peptidase III inhibitor and renin inhibitor – RV, PE
- ⁸⁰ other activity: dipeptidyl peptidase III inhibitor and renin inhibitor – DA, PF; alpha-glucosidase inhibitor - EA
- ⁸¹ other activity: neuropeptide - GQ; alpha-glucosidase inhibitor - EA
- ⁸² other activity: dipeptidyl peptidase III inhibitor – RR, PE; peptide activating ubiquitin-mediated proteolysis – WA; alpha-glucosidase inhibitor - EA
- ⁸³ other activity: dipeptidyl peptidase III inhibitor – RR, PE; activating ubiquitin-mediated proteolysis - WA, alpha-glucosidase inhibitor - EA
- ⁸⁴ other activity: bacterial permease ligand – KK
- ⁸⁵ other activity: dipeptidyl peptidase III inhibitor – RR, PE; activating ubiquitin-mediated proteolysis – WA; alpha-glucosidase inhibitor – EA
- ⁸⁶ other activity: dipeptidyl peptidase III inhibitor – FA, FR, KA(2); CaMPDE inhibitor and renin inhibitor – KF; alpha-glucosidase inhibitor - EA

Table 3. List of peptide sequences common for conventional and organic shoulders

	Sequence ¹	Protein	Position ²	ACE inhibitor	DPP-IV inhibitor	Stimulating ³	Antioxidant
1	L.EMELPGVKIVHA.Q ⁴	PDZ and LIM domain protein	[177-188]	LPG, VK, GV, PG, ME	LP, HA, GV, KI, ME, PG, VH, VK	IV	EL
2	R.VREPVISAVEQTAQR.T	Titin	[438-452]	VR, VE, AV	EP, TA, VR, AV, PV, QT, VE, VI	-	-
3	T.IEPDAVHIKAAKDAYK.V ⁶	Neulin	[5525-5540]	AY, AA, DA(2) ⁵ , YK, KA, IE, IEP, AV	KA, EP, AA, AV, AY, HI, VH, YK	-	AY, KD
4	E.APPPPAEVHEVHEEVH.E ⁷	Troponin T, fast skeletal muscle	[23-38]	AP, EV(3), PP(3), PPP(2)	PPPP, PP(3), AP, PA, AE, EV(3), HE(2), VH(3)	EE	-
5	E.EAPPPPAEVHEVHEEVH.E ⁸	Troponin T, fast skeletal muscle	[22-38]	AP, EA, EV(3), PP(3), EAP, PPP(2)	PPPP, PP(3), AP, PA, AE, EV(3), HE(2), VH(3)	EE	-
6	E.KAKDIEHAKKVSQQVSK.V ⁹	Nebulin	[153-169]	AKK, KA, IE	KA, HA, EH, KK, KV, QQ, QV, SK, VS(2)	-	KD
7	T.IETRDGEVVSEATQQQH.E ¹⁰	Desmin	[451-467]	GE, EA, DG, IE, EV, TQ	VV, AT, ET, EV, GE, QH, QQ(2), TQ, TR, VS	SE	-
8	R.VAPEEHPTLLTEAPLNPK.A ¹¹	Actin, aortic smooth muscle	[97-115]	VAP, LNP, PL, AP(2), EA, TE, LN, PT, HP, EAP	VA, AP(2), LL, HP, NP, PL, EH, LN, LT, PK, PT, TE, TL	LL, EE	-
9	W.ITKQEYDEAGPSIVHRK.C ¹²	Actin, alpha skeletal muscle	[359-375]	GP, AG, EA, EY, AGP	GP, AG, EY, HR, PS, QE, RK, SI, TK, VH, YD	IV	-

10	M.WITKQEYDEAGPSIVHRK.C ¹³	Actin, alpha skeletal muscle	[358-375]	GP, AG, EA, EY, AGP	GP, WI, AG, EY, HR, PS, QE, RK, SI, TK, VH, YD	IV	-
11	A.MSGMEGRKKMFDAKSPTSQ.- ¹⁴	Troponin I, slow skeletal muscle	[165-184]	MF, AA, GM, GR, DA, SG, EG, PT, ME	SP, AA, EG, KK, KS, ME, MF, PTM RK, TS	-	-
12	M.RFLGDEETVRKAMEAVAAQGKAK.- ¹⁵	Phosphoglycerate mutase 2	[231-253]	RF, VAA, AA, GK, QG, LG, GD, EA, VR, KA(2), ME, AV	VA, KA(2), KL, VR, AA, AV, ET, ME, QG, RK, TV	EE	-
13	H.YTTVADRPDIKKATQAAKQ.A ¹⁶	Nebulin	[5736-5754]	RP, AA, KA, TQ	VA, KA, RP, AA, YT, AD, AT, DR, KK, QA, TQ, TT, TV	-	IKK
14	Y.MVGPIEEAVAKADKLAEHS.- ¹⁷	ATP synthase subunit beta	[509-528]	GP, LA, VG, EA, KL, KA, IE, AV, VGP	GP, VA, KA, LA, AD, AE, AV, EH, HS, MV, PI, VG	EE(2)	-
15	R.DVGDWRKNIEEKSGMEGRKK.M ¹⁸	Troponin T, fast skeletal muscle	[157-176]	VG, GM, GR, SG, DG, EG, IE, ME, EK	EK, WRK, WR, EG, KK, KS, ME, RK(2), VG	EE	-

¹ sign (.) indicate cutting points

² position in parental protein

³ stimulating vasoactive substance release or glucose uptake stimulating peptide

⁴ other activity: anti-amnesic, antithrombotic, regulating the stomach mucosal membrane activity - PG

⁵ the number in () indicates the number of identified peptides, if more than one

⁶ other activity: dipeptidyl peptidase III inhibitor – YK, DA(2), KA

⁷ other activity: dipeptidyl carboxypeptidase inhibitor – PPPA; alpha-glucosidase inhibitor – PP(3)

⁸ other activity: dipeptidyl carboxypeptidase inhibitor – PPPA; alpha-glucosidase inhibitor – PP(3)

⁹ other activity: dipeptidyl peptidase III inhibitor – KA; bacterial permease ligand - KK

¹⁰ other activity: dipeptidyl peptidase III inhibitor – GE; alpha-glucosidase inhibitor – EA

¹¹ other activity: dipeptidyl peptidase III inhibitor – HP, PE; alpha-glucosidase inhibitor – EA

¹² other activity: anti-amnesic, antithrombotic, regulating the stomach mucosal membrane activity – GP; alpha-glucosidase inhibitor – EA

¹³ other activity: anti-amnesic, antithrombotic, regulating the stomach mucosal membrane activity – GP; alpha-glucosidase inhibitor – EA

¹⁴ other activity: dipeptidyl peptidase III inhibitor – DA; bacterial permease ligand – KK

¹⁵ other activity: dipeptidyl peptidase III inhibitor – RF, FL, KA(2); antithrombotic - DEE

¹⁶ other activity: dipeptidyl peptidase III inhibitor – KA; bacterial permease ligand - KK

¹⁷ other activity: dipeptidyl peptidase III inhibitor – LA, KA; antiamnesic, antitrombotic, regulating the stomach mucosal membrane activity – GP; activating ubiquitin-mediated proteolysis - LA

18 other activity: bacterial permease ligand - KK