	1 2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
Wild_NA Mouse_adapted_	M N F		-		T S						A V A V						I G I G			P G P G
	41	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
Wild_NA																				
Mouse_adapted_					-															
Wild_NA	81 N N I	84 TK	86 G	88 C 1	90 Г I N	92 ISV	94 V H	96 I Y	98 G K	100 D N	_	_	_	_	_	112 L V		116 E P	_	120 S C
Mouse_adapted_	NN	. T K	G I	<mark>.</mark> C 1	Γ <mark>Ι</mark> Ν	<mark>I</mark> SV	V H	ΙY	<mark>б</mark> К	<mark>d n</mark>	A V	R I	G E	s s	D V	L V	T <mark>R</mark> I	EP	Y V	s <mark>C</mark>
	121		_		_	_	_	_	138		142	_		148		152	154	_	158	
Wild_NA Mouse_adapted_	DP DP D																			
	161	164	166	168	170	172	174	176	178	180	182	184	186	188	190	192	194	196	198	200
Wild_NA Mouse_adapted_	SPF																			
_ , _	201	204	206		210	-						224		228		232		236	238	
Wild_NA	vvv	V Y N	I R F	R P N	A E	IN	I T V	V A I	RN	IL	RT	QE	S E	c v	сн	N G	V <mark>C</mark> F	٧V	/ F	т <mark>р</mark>
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Wild_NA	241 G S /		246	248	250 Г <mark>R</mark> I			256	258 G K						270		274 E E (		278	
_ Mouse_adapted_	G S <mark>/</mark>	Т	G P <mark>/</mark>	ר <mark>ס</mark> א	r <mark>r</mark> I	ΥY	F F	K E	<mark>с к</mark>	ΙL	<mark>к</mark> w	e s	L T	GТ	a <mark>k</mark> i	H I	E E 🤇	s	Y	<mark>G</mark> E
	281	284	286	288	290		294	_				_				_	314		_	_
Wild_NA Mouse_adapted_	R T ( R T (										Q I Q I									
	321	324	326	328	330	332	334	336	338	340	342	344	346	348	350	352	354	356	358	360
Wild_NA Mouse_adapted_											N N N N				S Y S Y					
mouse_auapteu_	361	364	366		370			_					386	388	390	392		<mark>N Т N</mark> 396	398	
Wild_NA	TIS	Б Т А	SF	s s	YE	ML	<mark>к</mark> 1	/ P	NA	LT	DD	R S	K P	ΙQ	G Q T	ГІ			w :	5 G
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Wild_NA	401 YS(	_		_	_	_	_	_	_		_			_					_	_
Mouse_adapted_																				
Wild_NA	441 V S N					_						465	_							
Mouse_adapted_																				

Figure A

Wild_HA		I T Q																		
Mouse_adapted	MN	I T Q	ΙL	VF	A L :		II	PT	NA	DK	I C	L G	нн	A V	S <mark>N</mark> (	GT	K V I	T	LΤΕ	R
Wild_HA Mouse_adapted_		44 7 E V 7 E V					_						_		70 LGC				TIT	
Wild_HA Mouse_adapted_		84 Q C Q C												G	                      	NE		LF		Ĺ
Wild_HA Mouse_adapted_		124 S G S G		DK									5 <mark>A</mark> (	RI		ss		AE		Ŵ
Wild_HA Mouse_adapted_		164 S N <sup>-</sup> S N <sup>-</sup>	T D I		FP	QN		s					A L I			н		's ı	198 2 A E A E	Q
Wild_HA Mouse_adapted_	<sup>201</sup> ТК ТК					/ T \	/ G 5	5 S	NY	QQ	_	VP	S P	G A I	R P C	_		236 S (	238 2 G R I G R I	_
Wild_HA Mouse_adapted_		244   W L   W L	ML	NP	U D T	r <mark>v</mark> 1		5 F I		AF					RC	<mark>к</mark> s	5 <mark>M</mark> G	IC		V
Wild_HA Mouse_adapted_		284 D A I D A I	N C E		<mark>C</mark> Y	H S						= Q I		SF	r <mark>A</mark> V	G H		RY	318 3 V K V K	Q
Wild_HA Mouse_adapted_		324 L L L L		TGN																w
Wild_HA Mouse_adapted_		364 F R F F R F	_		GE						-		_							Q
Wild_HA Mouse_adapted_		EL	I <mark>D</mark> I	N E F	E N E	E V E	E <mark>K</mark> C	2 I	G <mark>N</mark>	V I	N W	T R	D S	ITI	EVV	vs	Y N A			
Wild_HA Mouse_adapted_		NQ	нт	I <mark>D</mark> I	- <mark>A</mark> [	SE	EM	DК	LY	E R	v ĸ	RQ	L <mark>R</mark> I	EN	A E E	E D	GT		478 4 E I E I	F
Wild_HA Mouse_adapted_				M A	SI	RN	I N T	T Y [	о н s	5 <mark>K</mark> `	Y R E	EE	мо	2 N F	R I C	<u>1</u>	D P V	<mark>κι</mark>	518 5 SS SS	G
Wild_HA Mouse_adapted_		DV	ILV		FG	A S		II	- L /	A I		G L \	/ F ]		V K N					I

Figure B

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Wild_M2	м	S	L	L	1	F	v	E		Р	TF	C I		5 M	<u> </u>	С	Ν	С	S	G	S	S	E	Р	L	v	v	A	A	Ν	1	1	G	1	L	н	L	1	F .
Mouse_adapted_	М	s	L	L	т	Е	v	Е	т	P	T F	٦ ١	Г	s N	I E	С	Ν	С	s	G	s	s	Е	Р	L	v	v	А	А	Ν	I	I	G	I	L	н	L	I	
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Wild_M2	W	I	L	D	R	L	F	F	к	C	IΥ	' F	R R	F	K	Y	G	L	к	R	G	Ρ	s	т	Е	G	м	Р	E	s	М	R	Е	Е	Y	R	Q	E	2
Mouse_adapted_	W	I	L	D	R	L	F	F	K	C	IΥ	F	۲R	F	K	Y	G	L	К	R	G	Ρ	s	т	Е	G	м	Р	Е	s	м	R	Е	Е	Υ	R	Q	E	2
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	81	÷		84		86		88	9	90	9	2	9	4		97																							
Wild_M2	Q	Ň	А	v	D	v	D	D	G	н	F۱	/ 1	N 1	E	L	K																							
Mouse_adapted_	Q	N	А	v	D	v	D	D	G	н	F۱	/ 1	N I	E	E	. K																							

## Figure C