

NTDB id	587 KW2 RS10850 WP 042211510.1	 M Q T D I L R L L R P K G K K L A L I K Q A K L I Q L M G N L L N N G F N L G E V I N F L A L S K I L V E K E F V F K M H Q G L S S G K S L S E I L E S L S F S K N	81
NTDB id	73498 FNL60 RS01230 WP 255262721.1	. M T F L Q Q D I S L K E K H K Q K K L K I K K Q R K V I Q L F N N L F T S G F N L T E I D F L E R S H L L A E I Y T K K M R Q G L L N G L H L A E I M S S L G F S D D	84
NTDB id	386 SMU RS09030 WP 255262721.1	. M T F L Q Q D I S L K E K H K Q K K L K I K K Q R K V I Q L F N N L F T S G F N L T E I D F L E R S H L L A E I Y T K K M R Q G L L N G L H L A E I M S S L G F S D D	84
NTDB id	395 FSA28 RS09400 WP 257638827.1	. M T F L Q Q D I S L K E K H K Q K K L K I K K Q R K V I Q L F N N L F T S G F N L T E I D F L E R S H L L A E I Y T K K M R Q G L L N G L H L A E I M S S L G F S D D	84
NTDB id	430 SGO RS09415 WP 012130941.1	M I S F L Q Q D I S L S K Q K Q K K L C T S K Q K Q V I E L F N N L F S S G F H L A E T V D F L G R S A L L E K N Y V Q Q M R Q G L A N G Q A F S E I M A S L G F S D A	85
NTDB id	271 KZH43 RS09260 WP 074196785.1	 M D I S Q V F R L R R K K L A T A K Q K N I I T L F N N L F S S G F H L V E T I S F L D R S A L L D K Q C V T Q M R V G L S Q G K S F S E M M E S L G C S S A	79
NTDB id	230 SPD RS09890 WP 074196785.1	 M D I S Q V F R L R R K K L A T A K Q K N I I T L F N N L F S S G F H L V E T I S F L D R S A L L D K Q C V T Q M R V G L S Q G K S F S E M M E S L G C S S A	79
NTDB id	196 SPR RS09425 WP 074196785.1	 M D I S Q V F R L R R K K L A T A K Q K N I I T L F N N L F S S G F H L V E T I S F L D R S A L L D K Q C V T Q M R V G L S Q G K S F S E M M E S L G C S S A	79
NTDB id	161 SP RS10375 WP 074196785.1	 M D I S Q V F R L R R K K L A T A K Q K N I I T L F N N L F S S G F H L V E T I S F L D R S A L L D K Q C V T Q M R V G L S Q G K S F S E M M E S L G C S S A	79
NTDB id	529 SMSK321 RS09235 WP 080550783.1	 M D I S Q V F R L R R K K L A T A K Q K N I I T L F N N L F S S G F H L V E T I S F L D R S A L L D K Q C V T Q M R T D L S Q G K S F S E M M E S L G F S S A	79
NTDB id	501 SM12261 RS00950 WP 004238896.1	 M D I S Q V F R L R R K K L A T A K Q K N I I T L F N N L F S S G F H L V E T I S F L D R S A L L D K Q C V T Q M R A D L S Q G K S F S E M M E S L G F S S A	79
consensus		* ! * ! * * * * * * * ! * ! * * * ! * * * * * ! * ! * * * * ! * ! * * ! * * * * * ! * * ! * * ! * * * * * ! * * ! * * ! * * * * * ! * * ! * *	

V	I	T	Q	L	S	L	A	E	V	H	G	N	L	H	L	S	L	G	K	I	E	E	Y	D	N	L	A	K	V	K	K	L	I	E	V	A	T	Y	P	L	I	L	L	G	F	L	L	I	M	L	G	R	N	Y	L	L	P	Q	L	D	S	S	.	N	F	A	T	Q	L	I	G	N	L	P	Q	I	F	L	G	M				
V	V	T	Q	L	A	L	V	E	V	H	G	N	L	V	G	T	M	Q	L	V	E	L	H	L	K	K	Q	L	K	V	K	K	L	I	E	V	A	T	Y	P	V	V	L	L	V	F	L	I	G	I	M	W	G	L	K	N	Y	L	L	P	Q	L	D	K	G	N	.	N	F	A	T	L	I	N	H	L	P	L	V	F	S	V		166
V	V	T	Q	L	A	L	S	E	V	H	G	N	T	Q	K	S	L	L	K	I	E	S	Y	L	N	N	L	I	L	V	K	K	L	V	E	V	I	T	Y	P	I	I	L	I	F	L	V	I	M	L	G	K	N	Y	L	L	P	Q	L	E	R	G	.	N	F	A	T	R	L	I	S	N	F	P	I	F	L	L	G		168			
V	V	T	Q	L	A	L	S	E	V	H	G	N	T	Q	K	S	L	L	K	I	E	S	Y	L	N	N	L	I	L	V	K	K	L	V	E	V	I	T	Y	P	I	I	L	I	F	L	V	I	M	L	G	K	N	Y	L	L	P	Q	L	E	R	G	.	N	F	A	T	R	L	I	S	N	F	P	I	F	L	L	G		168			
V	V	T	Q	L	A	L	S	E	V	H	G	N	T	Q	K	S	L	L	K	I	E	S	Y	L	N	N	L	I	L	V	K	K	L	V	E	V	I	T	Y	P	I	I	L	I	F	L	V	I	M	L	G	K	N	Y	L	L	P	Q	L	E	R	G	.	N	F	A	T	R	L	I	S	N	F	P	I	F	L	L	G		168			
V	V	T	Q	L	S	L	A	E	L	H	G	N	L	S	L	A	L	L	K	I	E	E	Y	D	N	L	A	K	V	K	K	L	I	E	V	A	T	Y	P	M	M	L	L	G	F	L	V	L	I	M	T	G	L	R	N	Y	L	L	P	Q	L	S	S	Q	.	N	F	A	T	Q	L	I	G	H	L	P	T	I	F	L	T		169	
I	V	T	Q	L	S	L	A	E	V	H	G	N	L	H	L	S	L	G	K	I	E	E	Y	D	N	L	A	K	V	K	K	L	I	E	V	A	T	Y	P	L	I	L	L	G	F	L	L	I	M	L	G	R	N	Y	L	L	P	Q	L	D	S	S	.	N	I	A	T	Q	I	G	N	L	P	Q	I	F	L	G	M		163			
I	V	T	Q	L	S	L	A	E	V	H	G	N	L	H	L	S	L	G	K	I	E	E	Y	D	N	L	A	K	V	K	K	L	I	E	V	A	T	Y	P	L	I	L	L	G	F	L	L	I	M	L	G	R	N	Y	L	L	P	Q	L	D	S	S	.	N	I	A	T	Q	I	G	N	L	P	Q	I	F	L	G	M		163			
I	V	T	Q	L	S	L	A	E	V	H	G	N	L	H	L	S	L	G	K	I	E	E	Y	D	N	L	A	K	V	K	K	L	I	E	V	A	T	Y	P	L	I	L	L	G	F	L	L	I	M	L	G	R	N	Y	L	L	P	Q	L	D	S	S	.	N	I	A	T	Q	I	G	N	L	P	Q	I	F	L	G	M		163			
I	V	T	Q	L	S	L	A	E	V	H	G	N	L	H	L	S	L	G	K	I	E	E	Y	D	N	L	A	K	V	K	K	L	I	E	V	A	T	Y	P	L	I	L	L	G	F	L	L	I	M	L</																																		

VGLVSVLYLLALTYFKRS	SKMVSFSILARLPF	GIFVQTYLTAYYAREWGNMISQGMELTQIFQMMEEQGSQLFKEIGQDLAQT	251
CCFFILLVGIFTTFSRKISRRLHIGFCSHLPPAGKYLLQYLTA	YAREWGNLIQGQVMAQIVRLMQDQKSQLFREICYDMEKAL		253
CCFFILLVGIFTTFSRKISRRLHIGFCSHLPPAGKYLLQYLTA	YAREWGNLIQGQVMAQIVRLMQDQKSQLFREICYDMEKAL		253
CCFFILLVGIFTTFSRKISRRLHIGFCSHLPPAGKYLLQYLTA	YAREWGNLIQGQVMAQIVRLMQDQKSQLFREICYDMEKAL		253
VLMILGLTGAIYLVFKGQKRIPVYSFLARLPFGS	FVRITLTA	YAREWGNMISQGMELTQIFQMMEEQGSQLFKEIGQDLAQT	248
VGLVSVLALLALTIFYKRS	SKMSVFSILARLPF	GIFVQTYLTAYYAREWGNMISQGMELTQIFQMMEEQGSQLFKEIGQDLAQT	248
VGLVSVLALLALTIFYKRS	SKMSVFSILARLPF	GIFVQTYLTAYYAREWGNMISQGMELTQIFQMMEEQGSQLFKEIGQDLAQT	248
VGLVSVLALLALTIFYKRS	SKMSVFSILARLPF	GIFVQTYLTAYYAREWGNMISQGMELTQIFQMMEEQGSQLFKEIGQDLAQT	248
VGLVSVLALLALTIFYKRS	SKMRVFSILARLPF	LGI	248
VGFVSVGV	LALLATFYKRG	SKMRVFSILARLPF	248

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NTDB id 587 KW2 RS10850 WP 042211510.1	KAGQNFEQAVSHFSIFLPELSLMIEYGAIKDKLGLLELSVYADECWEQFFSKIDRLMQLIQPLIFIFVALMIVLLYAAMLPIYSN	336
NTDB id 73498 FNL60 RS01230 WP 255262721.1	LSGQEFHQKVLDYPFFLKELSLMIEYGEVKSCLGNELEIYAEETWEHFFAKLKKATQFVQPLIFVFVAIVIVMIYAAMLPIYQN	338
NTDB id 386 SMU RS09030 WP 255262721.1	LSGQEFHQKVLDYPFFLKELSLMIEYGEVKSCLGNELEIYAEETWEHFFAKLKKATQFVQPLIFVFVAIVIVMIYAAMLPIYQN	338
NTDB id 395 FSA28 RS09400 WP 257638827.1	LSGQEFHQKVLDYPFFLKELSLMIEYGEVKSCLGNELEIYAEETWEHFFAKLKKATQFVQPLIFVFVAIVIVMIYAAMLPIYQN	338
NTDB id 430 SGO RS09415 WP 012130941.1	QNGQEFSDKIASYPFFKKELSLIIEYGEVKSCLGSELEIYALKTWEEFFGRVNRMTMNLIQPLVFVFVALMIVLLYAAMLPLLYQN	339
NTDB id 271 KZH43 RS09260 WP 074196785.1	KNGREFSQTIGTYPFFRKELSLIIEYGEVKSCLGSELEIYAEKTWEAFFTRVNRMTMNLVQPLVFIFVALIIVLLYAAMLMPMYQN	333
NTDB id 230 SPD RS09890 WP 074196785.1	KNGREFSQTIGTYPFFRKELSLIIEYGEVKSCLGSELEIYAEKTWEAFFTRVNRMTMNLVQPLVFIFVALIIVLLYAAMLMPMYQN	333
NTDB id 196 SPR RS09425 WP 074196785.1	KNGREFSQTIGTYPFFRKELSLIIEYGEVKSCLGSELEIYAEKTWEAFFTRVNRMTMNLVQPLVFIFVALIIVLLYAAMLMPMYQN	333
NTDB id 161 SP RS10375 WP 074196785.1	KNGREFSQTIGTYPFFRKELSLIIEYGEVKSCLGSELEIYAEKTWEAFFTRVNRMTMNLVQPLVFIFVALIIVLLYAAMLMPMYQN	333
NTDB id 529 SMSK321 RS09235 WP 080550783.1	QNGREFSQTIIATYPFFKKELSLIIEYGEVKSCLGSELEIYAEKTWEAFFTRVNRMTMNLVQPLVFIFVALIIVLLYAAMLMPMYQN	333
NTDB id 501 SM12261 RS00950 WP 004238896.1	QNGQEFSTIGTYPFFKKELSLIIEYGEVKSCLGSELEIYAEKTWEAFFTRVNRMTMNLVQPLVFIFVALIIVLLYAAMLMPMYQN	333
consensus	*!***!*****!***!!!!*!!!!!!*!!!!!!*!!!!!!*!!!!!!*!!!!!!*!!!!!!*!!!!!!*!!!!!!*!!!!!!*!!!!!!	

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NTDB id 587 KW2 RS10850 WP 042211510.1	MGSGI	341
NTDB id 73498 FNL60 RS01230 WP 255262721.1	MEVNL	343
NTDB id 386 SMU RS09030 WP 255262721.1	MEVNL	343
NTDB id 395 FSA28 RS09400 WP 257638827.1	MEVNL	343
NTDB id 430 SGO RS09415 WP 012130941.1	MEVHL	344
NTDB id 271 KZH43 RS09260 WP 074196785.1	MEVNF	338
NTDB id 230 SPD RS09890 WP 074196785.1	MEVNF	338
NTDB id 196 SPR RS09425 WP 074196785.1	MEVNF	338
NTDB id 161 SP RS10375 WP 074196785.1	MEVNF	338
NTDB id 529 SMSK321 RS09235 WP 080550783.1	MEVNF	338
NTDB id 501 SM12261 RS00950 WP 004238896.1	MEVNF	338
consensus	!****	



☐ non conserved
☒ similar
☒ ≥ 50% conserved