

Alignment Name: Translation of H28 and H46 strains.aaa_bsm1

Length: 585

Translation of O145 CB12513
Translation of O145 RM12581
Translation of O28 CB9651
Translation of O152 SE11
Translation of O132 N87
Translation of O26:H46 5306-56

M	A	Q	V	I	N	T	N	S	L	S	L	I	T	Q	N	N	I	N	K	N	Q	S	A	L	S	S	S	I	E	R	L	S	S	G	L	R	I	N	S	A	K	D	D	A	A
M	A	Q	V	I	N	T	N	S	L	S	L	I	T	Q	N	N	I	N	K	N	Q	S	A	L	S	S	S	I	E	R	L	S	S	G	L	R	I	N	S	A	K	D	D	A	A
M	A	Q	V	I	N	T	N	S	L	S	L	I	T	Q	N	N	I	N	K	N	Q	S	A	L	S	S	S	I	E	R	L	S	S	G	L	R	I	N	S	A	K	D	D	A	A
M	A	Q	V	I	N	T	N	S	L	S	L	I	T	Q	N	N	I	N	K	N	Q	S	A	L	S	S	S	I	E	R	L	S	S	G	L	R	I	N	S	A	K	D	D	A	A
M	A	Q	V	I	N	T	N	S	L	S	L	I	T	Q	N	N	I	N	K	N	Q	S	A	L	S	S	S	I	E	R	L	S	S	G	L	R	I	N	S	A	K	D	D	A	A

Translation of O145 CB12513
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Translation of O26:H46 5306-56

G	Q	A	I	A	N	R	F	T	S	N	I	K	G	L	T	Q	A	A	R	N	A	N	D	G	I	S	V	A	Q	T	T	E	G	A	L	S	E	I	N	N	N	L	Q	R	I
G	Q	A	I	A	N	R	F	T	S	N	I	K	G	L	T	Q	A	A	R	N	A	N	D	G	I	S	V	A	Q	T	T	E	G	A	L	S	E	I	N	N	N	L	Q	R	I
G	Q	A	I	A	N	R	F	T	S	N	I	K	G	L	T	Q	A	A	R	N	A	N	D	G	I	S	V	A	Q	T	T	E	G	A	L	S	E	I	N	N	N	L	Q	R	I
G	Q	A	I	A	N	R	F	T	S	N	I	K	G	L	T	Q	A	A	R	N	A	N	D	G	I	S	V	A	Q	T	T	E	G	A	L	S	E	I	N	N	N	L	Q	R	I
G	Q	A	I	A	N	R	F	T	S	N	I	K	G	L	T	Q	A	A	R	N	A	N	D	G	I	S	V	A	Q	T	T	E	G	A	L	S	E	I	N	N	N	L	Q	R	V

Translation of O145 CB12513
Translation of O145 RM12581
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R	E	L	T	V	Q	A	S	T	G	T	N	S	D	S	D	L	D	S	I	Q	D	E	I	K	S	R	L	D	E	I	D	R	V	S	G	Q	T	Q	F	N	G	V	N	V	L
R	E	L	T	V	Q	A	S	T	G	T	N	S	D	S	D	L	D	S	I	Q	D	E	I	K	S	R	L	D	E	I	D	R	V	S	G	Q	T	Q	F	N	G	V	N	V	L
R	E	L	T	V	Q	A	S	T	G	T	N	S	D	S	D	L	D	S	I	Q	D	E	I	K	S	R	L	D	E	I	D	R	V	S	G	Q	T	Q	F	N	G	V	N	V	L
R	E	L	T	V	Q	A	S	T	G	T	N	S	D	S	D	L	D	S	I	Q	D	E	I	K	S	R	L	D	E	I	D	R	V	S	G	Q	T	Q	F	N	G	V	N	V	L
R	E	L	T	V	Q	A	S	T	G	T	N	S	D	S	D	L	D	S	I	Q	D	E	I	K	S	R	L	D	E	I	D	R	V	S	G	Q	T	Q	F	N	G	V	N	V	L

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Translation of O145 CB12513
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	140		150		160		170		180																																				
A	K	D	G	S	M	K	I	Q	V	G	A	N	D	G	Q	T	I	T	I	D	L	K	K	I	D	S	D	T	L	G	L	S	G	F	N	V	N	G	G	G	A	V	A	N	T
A	K	D	G	S	M	K	I	Q	V	G	A	N	D	G	Q	T	I	T	I	D	L	K	K	I	D	S	D	T	L	G	L	S	G	F	N	V	N	G	G	G	A	V	A	N	T
A	K	D	G	S	M	K	I	Q	V	G	A	N	D	G	Q	T	I	T	I	D	L	K	K	I	D	S	D	T	L	G	L	S	G	F	N	V	N	G	G	G	A	V	A	N	T
A	K	D	G	S	M	K	I	Q	V	G	A	N	D	G	Q	T	I	T	I	D	L	K	K	I	D	S	D	T	L	G	L	S	G	F	N	V	N	G	S	G	A	V	A	N	T
A	K	D	G	S	M	K	I	Q	V	G	A	N	D	G	Q	T	I	T	I	D	L	K	K	I	D	S	S	T	L	K	L	T	G	F	N	V	N	G	S	G	S	V	A	N	T
A	K	D	G	S	M	K	I	Q	V	G	A	N	D	G	Q	T	I	T	I	D	L	K	K	I	D	S	d	T	L	g	L	s	G	F	N	V	N	G	g	G	a	V	A	N	T

Translation of O145 CB12513
Translation of O145 RM12581
Translation of O28 CB9651
Translation of O152 SE11
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	190		200		210		220		230																																				
A	A	T	K	D	E	L	A	A	A	A	A	A	A	A	G	T	T	P	A	V	G	T	D	G	V	T	K	Y	T	V	D	A	G	L	N	K	A	T	A	A	N	V	F	A	N
A	A	T	K	D	E	L	A	A	A	A	A	A	A	A	G	T	T	P	A	V	G	T	D	G	V	T	K	Y	T	V	D	A	G	L	N	K	A	T	A	A	N	V	F	A	N
A	A	T	K	D	E	L	A	A	A	A	A	A	A	A	G	T	T	P	A	V	G	T	D	G	V	T	K	Y	T	V	D	A	G	L	N	K	A	T	A	A	N	V	F	A	N
A	A	T	K	S	D	L	A	A	A	Q	L	L	A	P	G	T	A	D	A	N	-	-	-	G	T	V	T	Y	T	V	S	A	G	L	K	T	S	T	A	A	D	V	I	A	S
A	A	T	K	S	D	L	A	A	A	Q	L	L	A	P	G	T	A	D	A	N	-	-	-	G	T	V	T	Y	T	V	S	A	G	L	K	T	S	T	A	A	D	V	I	A	S
A	A	T	K	D	E	L	A	A	A	A	A	-	A	A	G	T	T	P	A	V	G	T	D	G	V	T	K	Y	T	V	D	A	G	L	N	K	A	T	A	A	N	V	F	A	N
A	A	T	K	d	e	L	A	A	A	a	a	a	A	a	G	T	t	p	A	v	G	T	D	G	v	t	k	Y	T	V	d	A	G	L	n	k	a	T	A	A	n	V	f	A	n

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	240		250		260		270																																						
L	A	D	G	A	V	V	N	A	S	I	S	N	G	F	G	-	A	A	A	T	D	Y	T	Y	N	K	A	T	N	D	F	T	F	N	A	S	I	A	A	A	A	-	V	G	D
L	A	D	G	A	V	V	N	A	S	I	S	N	G	F	G	-	A	A	A	T	D	Y	T	Y	N	K	A	T	N	D	F	T	F	N	A	S	I	A	A	A	A	-	V	G	D
L	A	D	G	A	V	V	N	A	S	I	S	N	G	F	G	-	A	A	A	T	D	Y	T	Y	N	K	A	T	N	D	F	T	F	N	A	S	I	A	A	A	A	-	V	G	D
L	A	N	N	A	K	V	N	A	T	I	A	N	G	F	G	S	P	T	A	T	D	Y	T	Y	N	S	A	T	G	D	F	T	Y	S	A	T	I	A	A	G	T	N	S	G	D
L	A	N	N	A	K	V	N	A	T	I	A	N	G	F	G	S	P	T	A	T	D	Y	T	Y	N	S	A	T	G	D	F	T	Y	S	A	T	I	A	A	G	T	N	S	G	D
L	A	D	G	A	V	V	D	A	S	I	S	N	G	F	G	A	A	A	A	T	D	Y	T	Y	N	K	A	T	N	D	F	T	F	N	A	S	I	A	A	X	a	n	X	G	D
L	A	d	g	A	v	V	n	A	s	I	s	N	G	F	G	s	a	A	A	T	D	Y	T	Y	N	k	A	T	n	D	F	T	f	n	A	s	I	A	A	X	a	n	X	G	D

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Length: 585

Translation of O145 CB12513
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 Translation of O28 CB9651
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 Translation of O132 N87
 Translation of O26:H46 5306-56

	280		290		300		310		320																																				
S	N	S	A	A	L	Q	S	F	L	T	P	K	A	G	D	T	A	N	L	S	V	K	I	G	T	T	S	V	D	V	V	L	A	S	D	G	K	I	T	A	K	D	G	S	E
S	N	S	A	A	L	Q	S	F	L	T	P	K	A	G	D	T	A	N	L	S	V	K	I	G	T	T	S	V	D	V	V	L	A	S	D	G	K	I	T	A	K	D	G	S	E
S	N	S	A	A	L	Q	S	F	L	T	P	K	A	G	D	T	A	N	L	S	V	K	I	G	T	T	S	V	D	V	V	L	A	S	D	G	K	I	T	A	K	D	G	S	E
S	N	S	A	Q	L	Q	S	F	L	T	P	K	A	G	D	T	A	N	L	N	V	K	I	G	S	T	S	I	D	V	V	L	A	S	D	G	K	I	T	A	K	D	G	S	E
S	N	S	A	Q	L	Q	S	F	L	T	P	K	A	G	D	T	A	N	L	N	V	K	I	G	S	T	S	I	D	V	V	L	A	S	D	G	K	I	T	A	K	D	G	S	E
S	N	S	A	A	L	Q	S	F	L	T	P	K	A	G	D	T	A	N	L	S	V	K	I	G	T	T	S	V	N	V	V	L	A	S	D	G	K	I	T	A	K	D	G	S	A
S	N	S	A	a	L	Q	S	F	L	T	P	K	A	G	D	T	A	N	L	s	V	K	I	G	t	T	S	v	d	V	V	L	A	S	D	G	K	I	T	A	K	D	G	S	e

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	330		340		350		360																																						
L	F	I	D	V	D	G	N	L	T	Q	N	N	A	G	T	V	K	A	A	T	L	D	A	L	T	K	N	W	H	T	T	G	T	P	D	A	V	S	T	V	I	T	T	E	D
L	F	I	D	V	D	G	N	L	T	Q	N	N	A	G	T	V	K	A	A	T	L	D	A	L	T	K	N	W	H	T	T	G	T	P	D	A	V	S	T	V	I	T	T	E	D
L	F	I	D	V	D	G	N	L	T	Q	N	N	A	G	T	V	K	A	A	T	L	D	A	L	T	K	N	W	H	T	T	G	T	P	D	A	V	S	T	V	I	T	T	E	D
L	F	I	D	V	D	G	N	L	T	Q	N	N	A	G	T	V	K	A	A	T	L	D	A	L	T	K	N	W	H	T	T	G	T	P	S	A	V	S	T	V	I	T	T	E	D
L	Y	I	D	S	T	G	N	L	T	Q	N	S	A	G	T	V	T	A	A	T	L	D	G	L	T	K	N	H	D	A	T	G	-	-	-	A	V	G	V	D	I	T	T	A	D
L	f	I	D	v	d	G	N	L	T	Q	N	n	A	G	T	V	k	A	A	T	L	D	a	L	T	K	N	w	h	t	T	G	T	P	d	A	V	s	t	v	I	T	T	e	D

Translation of O145 CB12513
 Translation of O145 RM12581
 Translation of O28 CB9651
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 Translation of O26:H46 5306-56

	370		380		390		400		410																																				
E	T	T	F	T	L	A	G	G	T	D	A	T	T	-	-	-	S	G	T	I	T	V	A	N	A	R	M	S	A	E	S	L	Q	S	A	T	K	S	T	G	F	T	V	D	V
E	T	T	F	T	L	A	G	G	T	D	A	T	T	-	-	-	S	G	T	I	T	V	A	N	A	R	M	S	A	E	S	L	Q	S	A	T	K	S	T	G	F	T	V	D	V
E	T	T	F	T	L	A	G	G	T	D	A	T	T	-	-	-	S	G	T	I	T	V	A	N	A	R	M	S	A	E	S	L	Q	S	A	T	K	S	T	G	F	T	V	D	V
E	T	T	F	T	L	A	G	G	T	D	A	T	T	-	-	-	S	G	A	I	T	V	A	N	A	R	M	S	A	E	S	L	Q	S	A	T	K	S	T	G	F	T	V	D	V
E	T	T	F	T	L	A	G	G	T	D	A	T	T	-	-	-	S	G	A	I	T	V	A	N	A	R	M	S	A	E	S	L	Q	S	A	T	K	S	T	G	F	T	V	D	V
G	A	T	I	S	L	A	G	S	A	N	A	A	T	G	T	Q	S	G	A	I	T	L	K	N	V	R	I	S	A	D	A	L	Q	S	A	A	K	G	T	V	I	N	V	D	N
e	t	T	f	t	L	A	G	g	t	d	A	t	T	G	T	Q	S	G	X	I	T	v	a	N	a	R	m	S	A	e	s	L	Q	S	A	t	K	s	T	g	f	t	V	D	v

