## ConSurf Results for job:DATnat date:14/08/2023

1	11	21	31	41
M <mark>SKSKCSVGL</mark>	MSSVVAPAKE	PNAVGP <mark>K</mark> E <mark>VE</mark>	<mark>LILV</mark> KEQNGV	Q <mark>L</mark> T <mark>SS</mark> TL <mark>TNP</mark>
51	61	71	81	91
RQSPVEAQDR	ETWGKKIDFL	LSVIGFAVDL	ANVWRFPYLC	YKNGGGAFLV
	e e e e e b b	b e b b b b b b b b	bbbbbbbb	e e b e b b b b e
1.01	S	f sss	SS SSSS S	sfs ss f
101 PYLLFMVIAG	111 MPLFYMELAL	121 GQFNREGAAG	131 VWKICPILKG	141 VGFTVILISL
bbeebbeebb	ebbbbbbbb	bbebeebbbb	bbeebeebbb	bbebbebbe
s s s	s s	s s	f s	s
151	161	171	181	191
YVGFFYNVII	AWALHYLFSS	FTTELPWIHC	NNSWNSPNCS	DAHPGDSSGD
bbbbbbbbbb ss	bbbbebbeeb s	eeeebebeeb fs s	eeeeeeebe ff s	eeeeeeeee f
201	211	221	231	241
SSGLNDTFGT	TPAAEYFERG	V <mark>L</mark> HLHQSHGI	DDL <mark>G</mark> PPRWQL	TACLVLVIVL
eeeeeeee	bbbbbbeee	bbebeebebb	eeeeeeeeb f	e e b b e e b b e e
251	261	<b>s</b> 271	281	291
LYFSLWKGVK	TSGKVVWITA	TMPYVVLTAL	LLRGVTLPGA	IDGIRAYLSV
beeebeebee	eeeeeebb	ebbeebbeeb	eeebeebeeb	eebeeebeee
fs	fffffffss	sf s	f f fs fs	sf f
301	311	321	331	341
DFYRLCEASV	WIDAATQVCF	SLGVGFGVLI	AFSSYNKFTN	NCYRDAIVTT
DFYRLCEASV	WIDAATQVCF ebebbbbbbb	SLGVGFGVLI bbbbbbbbbb	AFSSYNKFTN bbbbebeeeb	NCYRDAIVTT ebeebbeebb
DFYRLCEASV eeeeeeeb f	WIDAATQVCF ebebbbbbbb f s s	SLGVGFGVLI bbbbbbbbb s s 371 MAQKHSVPIG	AFSSYNKFTN bbbbebeeeb sfs f	NCYRDAIVTT ebeebbeebb f
DFYRLCEASV eeeeeeeb f s 351 SINSLTSFSS eebbebbeeb	WIDAATQVCF ebebbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbbbbbb	SLGVGFGVLI bbbbbbbbbb s s 371 MAQKHSVPIG bbeeeeeee	AFSSYNKFTN bbbbebeeeb sfs f  381 DVAKDGPGLI ebeeebbbb	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbee
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss	WIDAATQVCF ebebbbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbb	SLGVGFGVLI bbbbbbbbbb s 371 MAQKHSVPIG bbeeeeeee	AFSSYNKFTN bbbbebeeeb sfs f  381 DVAKDGPGLI ebeeebbbb s f s	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbee s ss s
DFYRLCEASV eeeeeeeb f s 351 SINSLTSFSS eebbebbeeb	WIDAATQVCF ebebbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbbbbbb	SLGVGFGVLI bbbbbbbbbb s s 371 MAQKHSVPIG bbeeeeeee	AFSSYNKFTN bbbbebeeeb sfs f  381 DVAKDGPGLI ebeeebbbb	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbee
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeeebee	WIDAATQVCF ebebbbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbbb s s s 411 FFIMLLTLGI bbebbebe	SLGVGFGVLI bbbbbbbbbb s s 371 MAQKHSVPIG bbeeeeeee f 421 DSAMGGMESV ebbebebbb	AFSSYNKFTN bbbbebeeeb sfs f  381 DVAKDGPGLI ebeeebbbb s f s  431 ITGLIDEFQL bbbebeeeee	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbee s ss s
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeeebee	WIDAATQVCF ebebbbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbbb s s s 411 FFIMLLTLGI bbebbbebbe	SLGVGFGVLI bbbbbbbbbb s s 371 MAQKHSVPIG bbeeeeee f 421 DSAMGGMESV ebbebebbbb fs f	AFSSYNKFTN bbbbebeeeb sfs f  381 DVAKDGPGLI ebeeebbbb s f s  431 ITGLIDEFQL bbbebeeee	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbees s ss s 441 LHRHRELFTL eeeeeebbe
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeeebee f	WIDAATQVCF ebebbbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbb s s s 411 FFIMLLTLGI bbebbbebbe s s s	SLGVGFGVLI bbbbbbbbb s s 371 MAQKHSVPIG bbeeeeee s f 421 DSAMGGMESV ebbebebbb fs f	AFSSYNKFTN bbbbebeeeb sfsf  381 DVAKDGPGLI ebeeebbbb sfs 431 ITGLIDEFQL bbbebeeeee f	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbee s ss s 441 LHRHRELFTL eeeeeebbe
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeeebee f	WIDAATQVCF ebebbbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbbb s s s 411 FFIMLLTLGI bbebbbebbe ss s 461 LFCVTNGGIY	SLGVGFGVLI bbbbbbbbbb s 371 MAQKHSVPIG bbeeeeee s f 421 DSAMGGMESV ebbebebbbb fs f 471 VFTLLDHFAA	AFSSYNKFTN bbbbebeeeb sfs f  381 DVAKDGPGLI ebeeebbbb s f s  431 ITGLIDEFQL bbbebeeee f	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbees s ss s 441 LHRHRELFTL eeeeeebbe
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeeebee f	WIDAATQVCF ebebbbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbb s s s 411 FFIMLLTLGI bbebbbebbe s s s	SLGVGFGVLI bbbbbbbbb s s 371 MAQKHSVPIG bbeeeeee s f 421 DSAMGGMESV ebbebebbb fs f	AFSSYNKFTN bbbbebeeeb sfsf  381 DVAKDGPGLI ebeeebbbb sfs 431 ITGLIDEFQL bbbebeeeee f	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbee s ss s 441 LHRHRELFTL eeeeeebbe
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeeebee f	WIDAATQVCF ebebbbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbbb s s s 411 FFIMLLTLGI bbebbbebbe ss s 461 LFCVTNGGIY eebbbbbbbbb	SLGVGFGVLI bbbbbbbbbb s 371 MAQKHSVPIG bbeeeeee f 421 DSAMGGMESV ebbebebbbb fs f 471 VFTLLDHFAA bbebbeebbb f	AFSSYNKFTN bbbbebeeeb sfs f  381 DVAKDGPGLI ebeeebbbb s f s  431 ITGLIDEFQL bbbebeeee f	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbees s ss s 441 LHRHRELFTL eeeeeebbe 491 EAIGVAWFYG bbebbbeeee
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeeebee f 451 FIVLATFLLS ebbeebbeeb	WIDAATQVCF ebebbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbb	SLGVGFGVLI bbbbbbbbbb s s 371 MAQKHSVPIG bbeeeeee s f 421 DSAMGGMESV ebbebebbb fs f 471 VFTLLDHFAA bbebbeebbb f	AFSSYNKFTN bbbbebeeeb sfsf  381 DVAKDGPGLI ebeeebbbb sfs  431 ITGLIDEFQL bbbebeeee f  481 GTSILFGVLI bbbbbebbe	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbees s ss s 441 LHRHRELFTL eeeeeebbe 491 EAIGVAWFYG bbebbbeeee ff
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeeebee f	WIDAATQVCF ebebbbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbbbs s s s 411 FFIMLLTLGI bbebbbebbe ss s 461 LFCVTNGGIY eebbbbbbbb	SLGVGFGVLI bbbbbbbbbb s 371 MAQKHSVPIG bbeeeeee f 421 DSAMGGMESV ebbebebbbb fs f 471 VFTLLDHFAA bbebbeebbb f	AFSSYNKFTN bbbbebeeeb sfs f  381 DVAKDGPGLI ebeeebbbb s f s  431 ITGLIDEFQL bbbebeeee f  481 GTSILFGVLI bbbbbebbe	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbees s ss s 441 LHRHRELFTL eeeeeebbe 491 EAIGVAWFYG bbebbbeeee ff
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeeebee f 451 FIVLATFLLS ebbeebbeeb	WIDAATQVCF ebebbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbb	SLGVGFGVLI bbbbbbbbbbb s s  371 MAQKHSVPIG bbeeeeee s f  421 DSAMGGMESV ebbebebbb fs f  471 VFTLLDHFAA bbebbeebbb f	AFSSYNKFTN bbbbebeeeb sfsf  381 DVAKDGPGLI ebeeebbbb sfs  431 ITGLIDEFQL bbbebeeee f  481 GTSILFGVLI bbbbbebbe	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbees s ss s 441 LHRHRELFTL eeeeeebbe 491 EAIGVAWFYG bbebbbeeee ff
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeebee f 451 FIVLATFLLS ebbeebbeeb	WIDAATQVCF ebebbbbbbbb f s s 361 GFVVFSFLGY bebbbbbbbbbs s s s 411 FFIMLLTLGI bbebbbebbess s 461 LFCVTNGGIY eebbbbbbbbb s	SLGVGFGVLI bbbbbbbbbb s 371 MAQKHSVPIG bbeeeeee s f 421 DSAMGGMESV ebbebebbbb fs f 471 VFTLLDHFAA bbebbeebbb f 521 RLCWKLVSPC eebbeeebbe	AFSSYNKFTN bbbbebeeeb sfs f  381 DVAKDGPGLI ebeeebbbb s f s  431 ITGLIDEFQL bbbebeeee f  481 GTSILFGVLI bbbbbebbe	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbees s ss s 441 LHRHRELFTL eeeeebbe 491 EAIGVAWFYG bbebbbeees ff 541 VTFRPPHYGA eeeebbee
DFYRLCEASV eeeeeeeeb f s 351 SINSLTSFSS eebbebbeeb s ss 401 LPLSSAWAVV beebeeebee f 451 FIVLATFLLS ebbeebbeeb	WIDAATQVCF ebebbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbbb	SLGVGFGVLI bbbbbbbbbb s s 371 MAQKHSVPIG bbeeeeeee s f 421 DSAMGGMESV ebbebebbb fs f 471 VFTLLDHFAA bbebbeebbb f 521 RLCWKLVSPC eebbeeebbe s	AFSSYNKFTN bbbbebeeeb sfs f  381 DVAKDGPGLI ebeeebbbb s f s  431 ITGLIDEFQL bbbebeeee f  481 GTSILFGVLI bbbbbbebbe  531 FLLFVVVVSI bbeebbeebe	NCYRDAIVTT ebeebbeebb f s 391 FIIYPEAIAT bbbbbbbbees s ss s 441 LHRHRELFTL eeeeeebbe  491 EAIGVAWFYG bbebbeees ff 541 VTFRPPHYGA eeeeebebee

601 611
RELVDRGEVR QFTLRHWLKV

## The conservation scale:

1 2 3 4 5 6 7 8 9

Variable Average Conserved

- e An exposed residue according to the NACSES algorithm.
- b A buried residue according to the NACSES algorithm.
- f A predicted functional residue (highly conserved and exposed).
- s A predicted structural residue (highly conserved and buried).
- x Insufficient data the calculation for this site was performed on less than 10% of the sequences.