

Structural Motifs Using Random Fields (SMURF)

Home

6-bladed

7-bladed

8-bladed

6-6-bladed

6-7-bladed

6-8-bladed

7-6-bladed

7-7-bladed 7-8-bladed

8-6-bladed

8-7-bladed

8-8-bladed

Fasta input file

6-bladed
0-bladed
>YDR128W
Raw score: 29.9460
P-value: 0.00336
atvvtetvyrepaidsqgrafatssngkill
BBB BBBBB BBBB MCSSINEGPYNSPTFGKSLSLKVDGGFNAVSINPSGRDIVLASRQGLYI
ldltgskkvlfrpddnpspaviydntg-kllvvtrptnglviytlkwBB BB
ekktdigaialdnvndgafdtlkgalyvtd-rkvgsvyify
ldsgkvtplfkglsingiaispdg-ltlyirett-rnk BB BBBBB BBBBBB B YKDPNVLASSHGNDIFVWDLRKGSTPLCSLKGHVSSVNSIDFNRFKYSEIMSSSNDGTVK
<pre>iwkfelgtsl-vlkdatgpvgisvdsdgtlyvasgrsniaryklskdivqie BBBBB BBBBB BBBBBBB BBBBBB</pre>
<pre>spgkstysavspf-dgsvlvessnsslyilnwe BBBB BBBBBB KTKLQPIYAFKGHSDRVIDFLWRSRHTCDGDYDDREFQLVTWSKDCDLKLWPISDSIYGK</pre>
VNFDRGKRLEEKLPDYDYCSYNKEPENR

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7-bladed
>YDR128W
Raw score: 40.8185
P-value: 0.00106
dveieapaygsavilgds-sllliassgqvyvw
dlvtlkvtqrlplrsivssvafspdgdkvavag-dgrvalydlea-kftaeeap B BBBB BBBBB
gkvtalavskd-gnkvvvgssdgalsvldlegtptvvels-dgvtsvdldp
BBBB BBBBB BBBBB BB
ergtlyagakdgsiqvfdssksvaavt-gkespravafspntglyvlse-gkvc
BBBBB BBBBB BB BBBBB BBBKDPNVLASSHGNDIFVWDL-RKGSTPLCSLKGHVSSVNSIDFNRFKYSEIMSSSNDGTVK
vidlddsevtulrgedaltaiavsn-asylvaats
vidlddsevtvlrgedaltaiavsp-asvlyaatsBBB
dgtvylwdattkkekrvdalndsvssvavddkplyvgtsg-riviidle
BBBB BBB BBB BBB KTKLQPIYAFKGHSDRVI-DFLWRSRHTCDGDYDDREFQLVTWSKDCDLKLWPISDS
IYGKVNFDRGKRLEEKLPDYDYCSYNKEPENR

8-bladed >YDR128W Raw score: -64.4118 P-value: 0.09579 -----fedlsellikildlnsvdekskvkvdstkndlsvsdgrfilveygvksd |BBBBBBBBBBB|||||||||BBBB||||BBBBBBBB|BB|BB MCSSINEGPYN----SPTFGKSLSLKVDGGFNAVSINPSGRDIVLASROGLYIIDLDDPF asidiidlakrqliteiikisnealvevsk--dk-vlvgasvrndiavkdeksleskriv TPPRWLH----HITPW----QVADVQWSPHPAKPYWIVSTSNQKAIIWNLAKSSSNAIE ftrgtykiveyrgs-aliysgev-dllayaskedlieysf-----kt BBFVL----HGHSRAITDINFNPOHPDVLATCSVDTYVHAWDMRSPHRPFYSTSSWRSAASO vrvpyp--ae----tvkvfvvnaksitnltstaiqa--dhylndvtwseqkllslaarr VKWNYKDPNVLASSHGNDIFVWDLR--KGSTPLCSLKGHVSSVNSIDFNRF-KYSEIMSS --ssivdvldrderdlsvadkvdsdwvrkrpngedaftvd--gkvfykiisklgsiklfq SNDGTVKFWDYSKSTTESKRTVTTNFPIWRG----RYLPFGEGYCIMPMVGGNNAVYLIN aikgevaelteefsvigieala--sdylyyitadrsvkaidlkdldk-ltvlklkvvsqp LCDDDDSEQNKKTKLQPIYAFKGHSDRVIDFLWR-SRHTCDGDYDDREFQL----VTWS fsnrakyvalrvqqqs----llvvvssktlkqkavle-----BBBBBB | | | | BBBBBB BB | BB | BB | | K----DCDLKLWPISDSIYGKVNFD----RGKRLEEKLPDYDYCSYNKEPENR

6-6-b	laded

>YDR128W Raw score: -183.5049 P-value: 0.96589 atvvtetvyrepaidsqqrafats-snqkillldltqskkvlfrpddnpspaviydntqk BBB | | | BBBBBB | | | BBBBBB | BB | | | | B -----MCSSINEGPYNSPTFGKSLSLK----VDGGFNA----VSINP-SGRD llvvtrptnglviytlkwekktdigaialdnvndgafdtlkgalyvtdrkvgsvyifyld IVLASRQ--GLYIIDL------DDPFTP-PRWLHHIT--PWQVADVQ-sqkvtpl-fkqlsingiaispdqltlyirettrnkiwkfelgtslvlk-datgpvqisvd -WSPHPAKPY-----WIVSTSNQKAIIWNLAKSSSNAIEF----VLHGHSRAITDINFN sdq-tlyvasgrsniarykls-kdivqiesp-gk-stysavspf--dgsvlvessnssly ||| BBBBBB|||BBBBBB|| ||BB||| ||BBBBB|| ||BBB POHPDVLATCSVDTYVHAWDMRSPHRPFYSTSSWRSAASOVKWNYKDPNVLASSHGNDIF ilnweatvvtetvyrepaidsggrafatssngkillldltgskkvlfrpddnpspaviyd VWDLRK-----GST---PLCSLKG--HVSSVN----SI----DFNRFKYS-ntgkllvvtrptnqlviytlkwekktdigaialdnvndgafdtlkgalyvtd-rkvgsvy ---EIMSSSND-GTVKFWDYSKSTT----ESKR-----TVTT-NFPIWRGRYLPFGEGY ifyldsgkvtplfkglsingiaispdgltlyirettrnkiwkfelgtsl-vlk-datgpv CIM---PMVGGN-----NAVYLI--NLCDDD-DSEQNKKTKL-QPIYAFKGHSDRVI gisvdsdgtlyvas--grsniaryklskdivqiespgkstysavspfdgsvlvess---n DFLWRSRHTCDGDYDDREFQLVTWSKDCDLKLWPI----SDSIY--GKVNFDRGKRLE sslyilnwe----|BBBBBB|| EKLPDYDYCSYNKEPENR

6-7-bladed
0-7-Diaucu
>YDR128W Raw score: -222.2170 P-value: 0.97066
atvvtetvyrepaidsqgrafats-sngkillldltgskkvlfrpddnpspaviydntgk BBB BBBBBB BBBBBB BB BBBB BMCSSINEGPYNSPTFGKSLSLKVDGGFNAVSINP-SGRD
llvvtrptnglviytlkwekktdigaialdnvndgafdtlkgalyvtdrkvgsvyifyld BBBBB BBBBBB BBBBBB BBBBBB IVLASRQGLYIIDLDDPFTP-PRWLHHITPWQVADVQ
sgkvtpl-fkglsingiaispdgltlyirettrnkiwkfelgtslvlk-datgpvgisvd BB BBBB BBBBBB BBBBBB BBBB -WSPHPAKPYWIVSTSNQKAIIWNLAKSSSNAIEFVLHGHSRAITDINFN
sdg-tlyvasgrsniaryklskdivqiespgkstysavspfdgsvlvessnsslyilnwe BBBBBB BBBBB BB BBBB BBBBBB
dveieapaygsavilgdsslllias-sgqvyvwdlvtlkvt-qrlp-lrsivssvafspd BBBBBB BBBBBB BBBB BBBB DPNVLASSHGNDIFVWDLRKGSTPLCSLKGHVSSVNSIDFNRF
g-dkvavag-dgrvalydleakftaeeapgkvtalavskdgnkvvvgssdgalsvldleg BBBBBB BBBBBB BBBBB BBBBB KYSEIMSSSNDGTVKFWDYSKSTTESKRTVTTNFPIWRG
tptvvelsdgvtsvdldpergtlyagakdgsiqvfdssksvaavtgkespravafspntg BB BBBB BBBBB BBBBB BB BBBB B RYLPFGEGYCIMPMVGGNNAVYLINLCDDDDSEQNKKTKLQPI-Y
lyvlsegkvcvidlddsevtvlrgedaltaiavspasvlyaatsdgtvylwdattkkekr BBBBB BBBBBB BBBB BBBB BBBB
vdalndsvssvavddkplyvgtsgriviid-le BBB BBB VN-FDRGKRLEEKLPDYDYCSYNKEPENR

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6-8-bladed

>YDR128W Raw score: -490.3505 P-value: 0.99016 atvvtetvyrepaidsqqrafats-snqkillldltqskkvlfrpddnpspaviydntqk BBB | | | BBBBBB | | | BBBBBB | BB | | | | B -----VDGGFNA----VSINP-SGRD llvvtrptnglviytlkwekktdigaialdnvndgafdtlkgalyvtdrkvgsvyifyld BBBBB | BBBBBB | BBBBBB | BBBBBB IVLASRQ--GLYIIDL------DDPFTP-PRWLHHIT--PWQVADVQ-sqkvtplfkqlsingiaispdgltlyirettrnkiwkfelqtslvlkdatqpvqisvdsd -WSP-----HPAKPY--WIVSTSNQKAIIWNLAK-----SSSNAIEqtlyvasqrsniaryklskdivqiespqkstysavspfdqsvlvessnsslyilnwefed -FVLHGHSRAITDINFN---POH-----PDVLA---TCSVDT---YVHAWDM---lsellikildlnsvdekskvkvdstkndlsvsdgrfilveyqvk-sdasidiidlakrql --RSPHRPFYSTSS-----WRSAASQVKWNYKDPNVLASSHGNDIFV----WD iteiikisnealvevskdkvlvqasvrndiavkdeksleskrivftrgtykiveyrgsal ||| BBBB BBBBB |BBBBB BB| LRK------GSTP----LCSLK---GHVSSV-----NSI------DFNR--F iysqevdllayaskedlieysfktvrvpypaetvkvfvvnaksitnltstaiqadhylnd KYS----EIMSSSNDGTVKFWDYSKSTT----ESKRTVTT-----NFPIWRGRYLPF vtwseqkllslaarrssivdvldrderdlsvadkvdsdwvrkrpngedaftvdgkvfyki GEGY---CIMPMVGGNNAVYLINLCDDDDSEQNKKT-----KLQPI--YAFKG is klg sikl f qaik gevael teefs vigieal as dylyyitad rsv kaidlk dldkltvlHS-DRVIDFLWRSR---HT-----CDGDYDDREFQLVTWS-KDCDLK-----LWPI klkvvsqpfsnrakyvalrvqqqsllvvvssktlkqkavle SDSIYGKVNFDRGKRLEEKLPD-YDYCSYN----KEPEN-R

>YDR128W Raw score: -228.1169 P-value: 0.97656 dveieapaygsavilqdsslllias---sqqvyvwdlvtlkvtqrlplrsivssvafspd BBBBBB | BBBBB| | BBBB||| -----LSLKVDGGFNAVSINPS gdkvavagdgrvalydleakftaeeapgkvtalavskdgnkvvvgssdgalsvldlegtp GRDIVLASRQGLYIIDL-----DDPFTP---PRWLHH----ITPWQVADVQ tvvelsdgvtsvdldpergtlyagakdgsiqvfdssksvaavtgkespravafspntgly BB||| | BBBB | BBBBB | BBBBB | BBBB WSPHP---AKPYW----IVSTS-NQKAIIWNL---AKSS----SNAI---EFV vlseq-kvcvidlddsevtvlrqedaltaiavspasvlyaatsdqtvylwdattkkekrv BBB | BBBBBB | | | BBBB | BBBB | | | BBBB | | | LHGHSRAITDINFN-----POHPDV----LATCSVDTYVHAWD-----MRS dalndsvssvavddkplyvgtsgriviidleatvvtetvyrepaid-sqgrafatssngk P-----KWNYKDPNVLASSHGND illldltgskkvlfrp--dd--npspaviydntgkllvvtrptnglviytlkwekktdig IFVWDLRKGSTPLCSLKGHVSSVNSIDFNRFKYSEIMSSSND-GTVKFWDYSKSTT---aialdnvndgafdtlkgalyvtd-rkvgsvyifyldsgkvtplfkglsingiaispdglt BB|| ||BBBBBB |||BBBBBB ||BB||| ESKR----TVTT-NFPIWRGRYLPFGEGYCIM---PMVGGN-----NAVYLI--N lyirettrnkiwkfelgtsl-vlk-datgpvgisvdsdgtlyvas--grsniaryklskd LCDDD-DSEQNKKTKL-QPIYAFKGHSDRVIDFLWRSRHTCDGDYDDREFQLVTWSKDCD ivqiespqkstysavspfdqsvlvess---nsslyilnwe-----|BB||| BBBBB| |BBBBBB|| LKLWPI----SDSIY--GKVNFDRGKRLEEKLPDYDYCSYNKEPENR

7-7-bladed			
7 7 bladed			
>YDR128W			
Raw score: -265.605	58		
P-value: 0.97788			
dveieapaygsavilgdss			
	BBBBBB BBBBB		
	-MCSSINEGPYNSPTFG	KSLSLKVDG	GFNAVS.

fspd в||| INPS gdkvavagdgrvalydleakftaeeapgkvtalavskdgnkvvvgssdgalsvldlegtp GRDIVLASRQGLYIIDL-----DDPFTP---PRWLHH----ITPWQVADVQ ${\tt tvvelsdgvtsvdldpergtlyagakdgsiqvfdssksvaavtgkespravafspntgly}$ WSPHP----AKPYW-----IVSTS-NQKAIIWNL----AKSS-----SNAI----EFV vlseq-kvcvidlddsevtvlrgedaltaiavspasvlyaatsdgtvylwdattkkekrv BBB | BBBBBB | | | | BBBB | BBBB | | | | BBBB | LHGHSRAITDINFN-----POHPDV----LATCSVDTYVHAWD-----MRS dalndsvssvavddkplyvgtsgriviidledveieapaygsavilgdss-lllias-sg P-----SQVKWNYKDPNVLASSHGN qvyvwdlvtlkvt-qrlp-lrsivssvafspdq-dkvavaq-dgrvalydleakftaeea DIFVWDLRKGSTPLCSLKGHVSSVNSIDFNRFKYSEIMSSSNDGTVKFWDY-----pgkvtalavskdgnkvvvqssdgalsvldlegtptvvelsdgvtsvdldpergtlyagak ----SKSTTE--SKRTVTTN----FPIWRG----RYLPF--GEGYCIM---P--MVGGNdgsiqvfdssksvaavtgkespravafspntglyvlsegkvcvidlddsevtvlrgedal -NAVYLINLCDDDDSEQNK----KTKLQPI-YAFKGHSDRVIDFLWR--SRHTCDG-D-Y taiavspasvlyaatsdqtvylwdattkkekrvdalnds--vssvavddkplyvqtsqri DDREF----QLVTWSKDCDLKLWPISDSIYGKVN-FDRGKRLEEKLPD--YDYC----viid-le--BBB | ||

SYNKEPENR

7-8-bladed

>YDR128W Raw score: -544.0443 P-value: 0.99301 dveieapaygsavilqdsslllias---sqqvyvwdlvtlkvtqrlplrsivssvafspd -----LSLKVDGGFNAVSINPS gdkvavagdgrvalydleakftaeeapgkvtalavskdgnkvvvgssdgalsvldlegtp GRDIVLASRQGLYIIDL-----DDPFTP---PRWLHH----ITPWQVADVQ tvvelsdqvtsvdldperqtlyaqakdqsiqvfdssksvaavtgkespravafspntqly WSPHP---AKPYW----IVSTS-NQKAIIWNL---AKSS----SNAI---EFV vlseq-kvcvidlddsevtvlrqedaltaiavspasvlyaatsdqtvylwdattkkekrv BBB | BBBBBB | | | BBBB | BBBB | | | BBBB | | | LHGHSRAITDINFN-----POHPDV----LATCSVDTYVHAWD-----MRS ${\tt dalndsvssvavddkplyvgtsgriviidlefedlsellikildlnsvdekskvkvdstk}$ P-----RSAASQVKWNYK-----DPN ndlsvsdgrfilveyqvksdasidiidlakrqliteiikisnealvevskdkvlvgasvr BBBB | | | BBBBBB | BB | BBBBBBBB | BB -VLASSHGNDIFVWDLRKGSTPLCSLK----GH------VSSVN---SIDFN--ndiavkdeksleskrivftrgtykiveyrgsaliysgevdllayaskedlieysfktvrv -RFKYS----EIM-----SSS---NDG----TVKFWDYS-KSTTESKRTVT pypaetvkvfvvnaksitnltstaigadhylndvtwsegkllslaarrssivdvldrder T----NFPIWRGR-----YLPF---GEG-YCIM----PMVGGNNAVYLINLCDDDDS dlsvadkvdsdwvrkrpngedaftvdgkvfykiisklgsiklfgaikgevaelteefsvi BB | BBBBBB | BBBBBBB | BBBBBBB | BB EQNKKTKLQ-----PI----YAFKGHS-DRVIDFLWRSR---HT----qiealasdylyyitadrsvkaidlkdldkltvlklkvvsqpfsnrakyvalrvqqqsllv BB|BB|||BBBBBB|| BBBBBB BBB||||BBBBBB|| BBB CDGDYDDREFOLVTWS-KDCDLK-----LWPISDSIYGKVNFDRGKRLEEKLPD-YDYC vvssktlkgkavle BBB BB BB SYN----KEPEN-R

8-6-bladed

>YDR128W Raw score: -511.2834 P-value: 0.99404 -fedlsellikildlnsvdekskvkvdstkndlsvsdgrfilveygvksdasidiidlak M----CSSINEGPYNSP-----TFGKS---LSLKVDGGFNAVSINPSG--rqliteiikisnealvevskdkvlvgasvrndiavkdeksleskrivftrgtykiveyrg -RD-----IVLASRQGLYIID--LDDPFTP----PRWLHHIT-----PWQV saliys--gevdllayasked-lieysfktvrvpypaetvkvfvvnaksitnltstaiqa ||BBB| |||BBBBBBB| BBBBBBBBBBBBBBBB|| |||BBBB|| ADVQWSPHPAKPYWIVSTSNQKAIIWNLAKSSSN----AIEFVLHGHS--RAITDINFNP --dhylndvtwseqkllslaarrssivdvldrde-rdlsvadkvdsdwvrkrpngedaft OHPDVLATCSVD---TYVHAWDMRSPHRPFYSTSSWRSAASOVKW-----NYK vdgkvfykiisklgsiklfqaikgevaelteefsvigiealasdylyyitadrsvkaidl -DPNVLASSHG--NDIFVWDL----RK----GSTPLCS-LKGHVS---SVNSIDkdldkltvlklkvvsqpfsnrakyvalrvqqqsllvvvssktlkqkavleatvvtetvyr BBB | | | | BBBBB | BBBBBB | BBBBBB |BB|BB||| ----FNRFKYSEIMSSSN----DGTVKFWD-YSKSTTE---SKRTVTTNF-----epaidsqgrafatssngkillldltgskkvlfrpddnpspaviydntgkllvvtrptngl -PIWR--GRYLPFGE--GYCIMP----MVGGN-----NAVY-----LINLCDDD--DS viytlkwekktdigaialdnvndgafdtlkgalyvtdrkvgsvyifyldsgkvtplfkgl BB|| BBBBBB|||BBBBBB |BB|||| EQNKK----TKLQ--PIYAFKGHSDRVIDFL--WRSRHTCD-singiaispdqltlyirettrnkiwkfelqtslvlkdatgpvqisvdsdqtlyvasqrsn ----GDYDDREFQLVTWS----KDCDLKL------WPISD--SIYGKV---N iaryklskdivqiespqkstysavspfdqsvlvessnsslyilnwe FDRGKR----EKLPD---YDYCSY---NKEPENR-

8-7-bladed
o / bladed
>YDR128W Raw score: -588.1530
P-value: 0.99759
-fedlsellikildlnsvdekskvkvdstkndlsvsdgrfilveyqvksdasidiidlak BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB
rqliteiikisnealvevskdkvlvgasvrndiavkdeksleskrivftrgtykiveyrg BB BBBB BBBBB BBBBB BB BBB -RDIVLASRQGLYIIDLDDPFTPPRWLHHITPWQV
saliysgevdllayasked-lieysfktvrvpypaetvkvfvvnaksitnltstaiqa
BBB BBBBBBBBBBBBBBBBBBBBBBBBBBBB
dhylndvtwseqkllslaarrssivdvldrderdlsvadkvdsdwvrkrpngedaftvdg
BBB BBBB BBBBBBBBBBBBBBBBBBBBBBB
kvfykiisklgsiklfqaikgevaelteefsvigiealasdylyyitadr-svkaidlkd BBBBBBB BB BB BBBBBB BBBBBBB BBBBBBB
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vilgdssllliassgqvyvwdlvtlkvtqrlplrsivssvafspdgdkvavagdgrvaly BBBBBB BBBBBB BBBB BBBBB BBBBB KFWDYSKSTTESKRTVTTNFPIWRGRYLPFGEGYCI
dleakftaeeapgkvtalavskdgnkvvvgssdgalsvldlegtptvvelsdgvtsvdld
B BBBB BBBB BBBBB BBBB BBBB BBBB BBBB BBBB
pergtlyaga-kdgsiqvfdssksvaavtgkespravafspntglyvlsegkvcvidldd BBBBB BBBBB BB BBBBB BBBBBB
PIYAFKGHSDRVIDFLWRSRHTCDGDYDDR-EFQLVTWSKDCDLKL
sevtvlrgedaltaiavspasvlyaatsdgtvylwdattkkekrvdalndsvssvavddk BBBB BBBB BBBB BBB WPISDSIYGKVNFDRGK-RLEEKLPD
plyvgtsgriviid-le BBB BBB YDYCSYNKEPENR

```
8-8-bladed
>YDR128W
Raw score: -1042.4078
P-value: 0.99995
-fedlsellikildlnsvdekskvkvdstkndlsvsdgrfilveygvksdasidiidlak
    M----CSSINEGPYNSP-----TFGKS---LSLKVDGGFNAVSINPSG---
rqliteiikisnealvevskdkvlvgasvrndiavkdeksleskrivftrgtykiveyrg
BB BBBB BBBBB BB
-RD-----IVLA----SRQGL----YIIDL-----DD------PFTP
saliysqevdllayaskedlieysfktvrvpypaetvkvfvvnaksitnltstaiqadhy
 --PRW----LHHITPWQ-VADVQWSPHPAK----PYWIVSTSNQ-----KAII---WN
lndvtwseqkllslaarrssivdvldrderdlsvadkvdsdwvrkrpngedaftvdgkvf
L-AKSS----SNAIEFVLHGHSRAITD--INF--NPQHP------DV-----LA
ykiisklgsiklfqaikgevaelteefsvigiealasdylyyitadrsvkaidlkdldkl
BBBBB BBBBBBB BB BBBBBB BBBBBB B
TCSVD--TYVHAWDM----RS-----PHRPF---YSTSSW---RSAASQ-----V
tvlklkvvsqpfsnrakyvalrvgggsllvvvssktlkgkavlefedlsellikildlns
           BBBBBB BBBBBB
                          BB BB
KW----NYKDPN-----VLASSH----GNDIFV----WD-LR-----KGSTPLCSLKG
vdekskvkvdstkndlsvsdgrfilveyqvksdasidiidlakrqliteiikisnealve
          BBBB | BBBBBB BB BBBBBBB BB |
H-----VSSV--NSIDFNR-FK-YSEIMSSS---NDG-----TVK
vskdkvlvgasvrndiavkdeksleskrivftrgtykiveyrgsaliysgevdllayask
B BBBBB BBBBB BB
                            BBB BBB BBBBBBB
F----WDYSK----STTES-----KR-----TVT---TNF-----PIWRGRY
\verb|edlieysf| ktvrvpypaetvkvfvvnaksitnltstaiqadhylndvtwseqkllslaar|
B BBBBBBBBBB BBBBBBB BBBB BBBB BBBBBBB
L-PFGEGYCIMPMV----GGNNAVYL-----INLC---DDD-DSEQ----NKKTKLQ
rssivdvldrderdlsvadkvdsdwvrkrpngedaftvdgkvfykiisklgsiklfgaik
PIYAFKGHSD--RVI--DFLWR-----SR----HTCDGDYDDREFOLVT---
gevaelteefsvigiealasdylyyitadrsvkaidlkdldkltvlklkvvsqpfsnrak
  ---WSK-----DC-DL---KLWPIS---DSIYGK-----VNF----DRGKRL---E
yvalrvqqqsllvvvssktlkqkavle
BBBBBB BBBBBB BB BB BB BB
EKLPDY----DYCSYN----KEPEN-R
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If you use SMURF, please cite: M. Menke, B. Berger and L. Cowen, "Markov random fields reveal an N-terminal double beta-propeller motif as part of a bacterial hybrid two-component sensor system" PNAS March 2, 2010 vol. 107 no. 9 4069-4074.

Webserver by Matt Menke (Based on Anoop Kumar's Matt script)