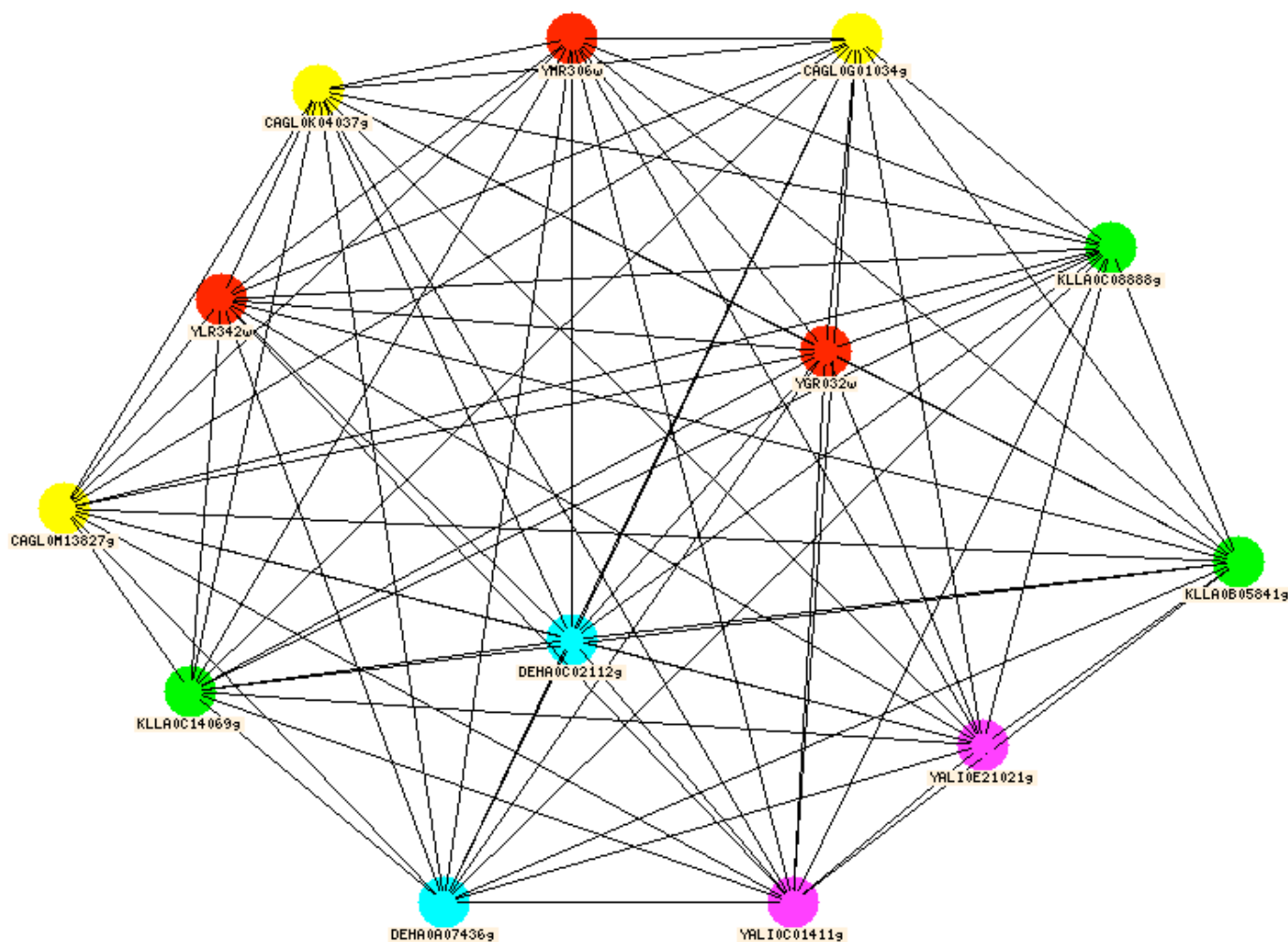




## GLR.23



### 13 members :

Gene Name	aa length	Defline
<a href="#">YGR032w</a>	1895	<b>GSC2 1,3-beta-D-glucan synthase subunit P3.64.f3.1</b>
<a href="#">YLR342w</a>	1876	<b>FKS1 1,3-beta-D-glucan synthase, catalytic subunit P3.64.f3.1</b>

<a href="#">YMR306w</a>	1785	<b>FKS3 similarity to 1,3-beta-glucan synthases P3.64.f3.1</b>
<a href="#">CAGL0G01034g</a>	1863	<b>highly similar to sp P40989 Saccharomyces cerevisiae YGR032w GSC2 or sp P38631 Saccharomyces cerevisiae YLR342w FKS1, start by similarity [Candida glabrata] Complete CDS. CAGL0G01034g CAGL-IPF3885 CAGL-CDS0047.1</b>
<a href="#">CAGL0K04037g</a>	1897	<b>tr Q9P8N8 Candida glabrata 1, 3-beta-glucan synthase, identified start [Candida glabrata] Complete CDS. CAGL0K04037g CAGL-IPF2142 CAGL-CDS0043.1</b>
<a href="#">CAGL0M13827g</a>	1840	<b>similar to sp Q04952 Saccharomyces cerevisiae YMR306w FKS3, hypothetical start [Candida glabrata] Complete CDS. CAGL0M13827g CAGL-IPF6051 CAGL-CDS0048.1</b>
<a href="#">KLLA0B05841g</a>	1878	<b>highly similar to sp P40989 Saccharomyces cerevisiae GR032w GSC2 1, 3-beta-D-glucan synthase subunit, start by similarity [Kluyveromyces lactis] Complete CDS. KLLA0B05841g KLLA-IPF7496 KLLA-CDS0039.1</b>
<a href="#">KLLA0C08888g</a>	1775	<b>similar to sp O13423 Candida albicans Glucan synthase, start by similarity [Kluyveromyces lactis] Complete CDS. KLLA0C08888g KLLA-IPF6217 KLLA-CDS0046.1</b>
<a href="#">KLLA0C14069g</a>	1761	<b>similar to sp Q04952 Saccharomyces cerevisiae YMR306w FKS3, start by similarity [Kluyveromyces lactis] Complete CDS. KLLA0C14069g KLLA-IPF5889 KLLA-CDS0048.1</b>
<a href="#">DEHA0A07436g</a>	1748	<b>similar to sp Q04952 Saccharomyces cerevisiae YMR306w FKS3 1,3-beta-glucan synthase, start by similarity [Debaryomyces hansenii] Complete CDS. DEHA0A07436g DEHA-IPF6841 DEHA-CDS0058.1</b>

<a href="#">DEHA0C02112g</a>	1881	highly similar to tr O13428 <i>Candida albicans</i> Beta-1, 3-glucan synthase catalytic subunit 1, start by similarity [ <i>Debaryomyces hansenii</i> ] Complete CDS. DEHA0C02112g DEHA-IPF2416 DEHA-CDS0041.1
<a href="#">YALI0C01411g</a>	1914	similar to tr Q9UVK9 <i>Yarrowia lipolytica</i> Fks1p, hypothetical start [ <i>Yarrowia lipolytica</i> ] Partial CDS. YALI0C01411g YALI-IPF7476 YALI-CDS0031.1
<a href="#">YALI0E21021g</a>	1960	tr Q9UVK9 <i>Yarrowia lipolytica</i> glucan synthase, identified start [ <i>Yarrowia lipolytica</i> ] Complete CDS. YALI0E21021g YALI-IPF40294

[See the proteins sequences for GLR.23 family](#)

[See the protein to protein distances for GLR.23 family](#)

[Load the PSSM matrix corresponding to GLR.23 family](#)

T-COFFEE, Version\_1.37 (Wed Jul 11 14:38:06 PDT 2001)  
 Notredame, Higgins, Heringa, JMB(302)pp205-217,2000  
 CPU TIME:0 sec.  
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\*  
 BAD AVG GOOD

\*  
 YGR032w : 66  
 YLR342w : 67  
 CAGL0G01034g : 66  
 YMR306w : 67  
 CAGL0M13827g : 65  
 KLLA0C14069g : 67  
 DEHA0A07436g : 65  
 YALI0C01411g : 60  
 YALI0E21021g : 66  
 DEHA0C02112g : 67  
 KLLA0B05841g : 67  
 CAGL0K04037g : 66  
 KLLA0C08888g : 50

```

YGR032w -----MSYNDPNLNGQYYNSNGDGTGDGNYPTYQVTQDQSAYDEYGOPIYT
YLR342w -----MNTDQQPYQGQTDYTOGPGNGQSQEODYDQYGQPLYP
CAGL0G01034g -----MSYNNNGQQMSDQGYDNNQGYYPEDQQNGQ
YMR306w -----
CAGL0M13827g -----
KLLA0C14069g -----
DEHA0A07436g -----
YALI0C01411g -----MPRRATMRVYSESTHSMASYDNRSSDFSEDYTTTEGHITENAATDGH
YALI0E21021g MAVKAATAPVAPATPPSLQKPCRQLQLSYDYNQYDQYQPGQGGDQHGNGQNHQHPGQ
DEHA0C02112g -----MSYNDNNHNYDQPNQHGGAAGDEGYQQQPYDD
KLLA0B05841g -----MSYNDPYQDQGGHI PRDEYDQQQYDEYGO

```

CAGL0K04037g -----MSYDQGGNGNWQNTDPNGNYYYNGAENNEFYDQDYASQQPEQQQGG  
 KLLA0C08888g -----

## Cons

YGR032w QNQLDDGYYDPNEQYVDGTQFPQGDPSQDQGPYNNNDASYYNQPP--NMMNPSSQDG  
 YLR342w SQA--DGYYDPNVAAGTEADMYGQPPNESYDQDYTNGEYYGQPP----NMAAQDG  
 CAGL0G01034g AMYGDEGYDPNI-----SGGDYYNQPPPP--PNMMGQDM  
 YMR306w -----  
 CAGL0M13827g -----MHIDGSEK  
 KLLA0C14069g -----  
 DEHA0A07436g -----  
 YALI0C01411g YTTTDDDSYDSYYDGGDNASTMRMAPDTSSLAAVNSSVDWIREKDEAIVNPGVAPDL  
 YALIOE21021g QEYYDDYDDGYGNQYGAQEGYQEGVDQHGNPYQHDPHAGVAAATSGGYRNVKDDGS  
 DEHA0C02112g LNQPQQDYDQPNVQYQQQPYDMDGYDQDFTG-----GQQLPGQPVGGYNADP  
 KLLA0B05841g PIYAQDQYYAQDPGYDQSAEYYQQPGQPGQP---GQGYDQD-----RGAGQDP  
 CAGL0K04037g EGYDEYDQPNYNYMNDPQQGQMPQQQPGGYENDGYYSYNNQMNAVGNGGLGPDQ  
 KLLA0C08888g -----

## Cons

YGR032w ENFSDFSYGP-----PSGTYPND-----QYTPSQMSYPD  
 YLR342w ENFSDFSYGP-----PGTPG-YD-----SYGGQYTASQMSYGE  
 CAGL0G01034g ENFSDFSYGP-----PGVQGYD-----YQNMNQSQYTPSQMSYNG  
 YMR306w -----  
 CAGL0M13827g EPLQDEEGDMKSNEDDIVDVSILDSTTD-----GIMKERADGNFYNDSDVRYIQ  
 KLLA0C14069g -----  
 DEHA0A07436g -----MNGVENGGMIEEVD  
 YALI0C01411g QGDGNLHSIPPDHQKYEHGAPFTTGK-----MSAPYNQKSAPYDQEMSGFV  
 YALIOE21021g ETFSDFTQNGQGYNQYNQGYNQGYQGYQGYQGYGGYDQYGYNDASQISF--  
 DEHA0C02112g EAFSDFSYGGQT-----PGTPG-YD-----QYGTQYTPSQMSYGG  
 KLLA0B05841g ENFSDFS-YAP-----PGTPGGYD-----SYGGASGNGYGYAPSQMSYGD  
 CAGL0K04037g TNFSDFSYGP-----PPFQNNQ-----ANYTPSQLSYSNNGMGSNG  
 KLLA0C08888g -----MDFAQDYVNYEGFWGK

## Cons

YGR032w QDGSSGASTPYGNVGVNG--NQYYDPNAIEMALPNDPYPAWTA--DPQSPLPIEQI  
 YLR342w PN-SSGTSTP-----IYG-----NYDPNAIAMALPNEPYPAWTA--DSQSPVSIEQI  
 CAGL0G01034g -DPNSGSSTP----I-YGNGMS-AYDPNAIAMALPNDPYPAWTA--DSQSPVPIEQI  
 YMR306w -----MDFMSPKFLTDVEYPAWCQ--DDEVPTMQEI  
 CAGL0M13827g KAYS-----QKEIETLLGIDYPSWSL--ESELPLTSDEI  
 KLLA0C14069g -----MTSPQVSMTEIEFPAWYQ--DEQVPVTKQEI  
 DEHA0A07436g GEEDNG-----IVSEVSDIEGSTYCNIGKEEATPYPSWCI--QNGAPINKDEI  
 YALI0C01411g SPQVRYRMALFPPEIGSGNVPLEYTDEHQKHL--FETYFDWVPHQPQIVIPINLYEV  
 YALIOE21021g -R-SSGASTP-----IYGLDYAASQQGIGAGSGHSREYPYAWSA--DNQVPVTKKEI  
 DEHA0C02112g PR-SSGASTP-----IYGGMG-SYDPTQFQMS-SSLPYPAWSA--DPQAPIKIEHV  
 KLLA0B05841g PR-SSGASTP-----IYG--GEGFDPSAVAMALPTEPYPAWTA--DTQTPVTASEI  
 CAGL0K04037g MN-MSGSTP-----VYG-----NYDPNAIAMTLNDPYPAWTA--DPQSPVSIEQI  
 KLLA0C08888g QDTGSKNEAP-----NSSRKPIKSKVAVDY-----LAEL

## Cons

YGR032w EDIFIDLTKKFGFQRDSMRNMFDFHMTLLDSRSSRMSPE-----CALLSLHADI  
 YLR342w EDIFIDLTKKFGFQRDSMRNMFDFHMTLLDSRSSRMSPD-----CALLSLHADI  
 CAGL0G01034g EDVFIDLTKKFGFQRDSMRNMFDFHMTLLDSRSTRMAPD-----CALLSLHADI  
 YMR306w REIFVELMDKFGFQKSSMENMYQHLMGQLDSRASRTGAQ-----NALVSLHVSII  
 CAGL0M13827g LEIFDSLTKKFGFQESSKINIYHLFMSQLDSRASRTTPL-----SALISLHVSII  
 KLLA0C14069g KDIFNDLTRKFGFQSSKENVYIHLTQLDSRASRTTAQ-----QALISLHASYI  
 DEHA0A07436g WQIFLTLGNMFGFQSDSQSNYDLFMTLLDSRSSRMSCK-----LALLSLHADI  
 YALI0C01411g VEVFDLLQSKFGFQVQSMRNMRDHFMTLLDSRSSRMSYN-----DALLTLHADI  
 YALIOE21021g EDVFIDLTKKFGFQRDSMRNMFDFHMTLLDSRSSRMTPN-----CALLSLHADI  
 DEHA0C02112g EDIFIDLANKFGFQRDSMRNMFDFHMTLLDSRSSRMSPA-----CALLSLHADI  
 KLLA0B05841g EDVFIDLTKKFGFQRDSMRNMFDFHMTLLDSRASRMSPO-----CALLSLHADI

CAGL0K04037g EDVFIDLTKNKGFGQRDSMRNIFDLFMTLLDSRSTRMSPD-----QALLSVHADYI  
 KLLA0C08888g SIIFFDDLHVHAFNFQKDNGRNMQDYFIVMWESRNARTCTNDEQKLSSESLSIYEEYI

Cons : \* \* : . \*\* . . \* : : : : \* \* : \* : \* : : : . \*\*

YGR032w GGDTANYKKWY-FAAQLDMDEIGFRNMKL-GKLSRKARKAK-KKNKKAMQ--EASP  
 YLR342w GGDTANYKKWY-FAAQLDMDEIGFRNMSL-GKLSRKARKAK-KKNKKAME--EANP  
 CAGL0G01034g GGDTANYKKWY-FAAQLDMDEVGFRNMSL-GKLSRKARKAK-KKNKKAME--EANP  
 YMR306w GGEHANYRKWY-FAAQLDLDEEIGFQNMRLHGKARQRNVKMAKKRGVSIKE--QIKQ  
 CAGL0M13827g GGEHANYRKWY-FAAQLDLDEEIGFQNMKLHGKARQRNVKMAKKRGVSIKE--QISQ  
 KLLA0C14069g GGDCSANYKKWY-FAAQLDLDEEIGFPYMKLHGKSKRNRNAKFASEKGISIKE--QORL  
 DEHA0A07436g GGEHSNYKKWY-FAAHFELDENV-----KVNEKQWR-WFKDFAKFKS-----  
 YALI0C01411g GGEHSNYRKWY-FASQMDITDKIGGINVDYSGKLTAKAGRRMVA-----  
 YALIOE21021g GGDNANYRKWY-FAAQLDLDDDIGFRNMKL-GKTNKRTRKAR-KKFRKEMQ--DPD-  
 DEHA0C02112g GGDNANYKKWF-FASQODLDDAIGFSNMTL-GKVGKKARKAS-KKSKKARKAVEEHG  
 KLLA0B05841g GSDSANYKKWY-FAAQLDMDEIGFRNMSL-GKMSRKARKAR-KKNKKAME--EANS  
 CAGL0K04037g GGDTANYKKWY-FAAQLDMDEVGFRNMNL-GKLSRKARKAK-KKNKKAME--EANP  
 KLLA0C08888g WGTSHSNFTKWYRFVYGLD-----AMPAWFTSSGP-----

Cons . : \* : \* \* : \* . :

YGR032w --ED-----TEETLNQIEGDNLSLEAADFRWKS KMNQLSPFEMVRQIALFLLC  
 YLR342w --ED-----TEETLNKIEGDNLSLEAADFRWKAKMNQLSPLERVRHIALYLLC  
 CAGL0G01034g --ED-----AEDILNKLEGDNLSLEAADFRWKT KMNALTPIERVRQIALYLLI  
 YMR306w WNEKEQEFINNHPKITLTQEQLDQTNLKSADYKWKLMKMKLT PENMIRQLALYLLC  
 CAGL0M13827g WRQREQEFVNSYPKITFDHSQLKDATNLTAANYRWKLMKMDLT PKQMVQRVALYLLC  
 KLLA0C14069g WKQKQDEFLENYPKIIMS ENERKTGSSYKAADYKWKMKMNSLTSSQMTRQLALYLLI  
 DEHA0A07436g -----KLNTPYNLNDIQDTSCLLAMEYNWRLRMKNYTD EDEYIYQIALYLLI  
 YALI0C01411g -----TDTVWNEENANFSYEHSSNRNWKNHMATI SPKDLKDIALYLLI  
 YALIOE21021g --AD-----PAKTLEEIEGDNLSLEAAEYRWKTKMNALS PLERVRHIALWLLC  
 DEHA0C02112g --QD-----MDALANELEGDYSLDAAEIRWR AKMNGLSPEERVRDIALYLLL  
 KLLA0B05841g -SEN-----PESALNQLEGDNLSLEAADFRWKAKMNKLS PVERVRQIALYLLL  
 CAGL0K04037g --ED-----AAEVLNKIEGDNLSLEASDFRWKTKMNMLT PIERVRQVALYMLI  
 KLLA0C08888g -----ELLITREIMTQIALWLLI

Cons : : \* \* : \* \*

YGR032w WGEANQVRFTPECLCFIYK CASDYLD SAQCQQRPDPLPEGD-----FLNRVIT  
 YLR342w WGEANQVRFTAECCLCFIYK CALDYLD SPLCQQRQEPMEGD-----FLNRVIT  
 CAGL0G01034g WGEANQVRFTSECLCFIYK CATDYLD NSPLCQQRTEPMPEGD-----YLN RVIT  
 YMR306w WGEANQVRFAPECLCFIFK CALDYD ISTSSSEKTVKSPEYS-----YLN DVIT  
 CAGL0M13827g WGEANQLRFAPECLCYIFK CAMDYDTSETIGSEENTRFIPC-----YLD DVIS  
 KLLA0C14069g WGEANQLRFTPECLCFIFK CALDYDSS-LQDI EDSSQDEFT-----FLNN IIT  
 DEHA0A07436g WGEANNLRFMPECICFIYK CAFDYFESAE LDTKAN---EFE-----FLD TVVT  
 YALI0C01411g WGEANQVRFMPECLCFLYN CARDFCYSTAFATAPD- VEDGV-----FLD TIT  
 YALIOE21021g WGEANQVRFTPECLCFIYK CADDYYTSAECQQRVEPV EEGD-----YLNRIIT  
 DEHA0C02112g WGEANQVRFTPETICYIYK TAFDYLMSPQCQRQEPVPEGD-----YLN RVIT  
 KLLA0B05841g WGEANQVRFTSECLCFIYK CASDYLD SPLCQNRSDPIPEGD-----FLNRVIT  
 CAGL0K04037g WGEANQVRFTSECLCFIYK CASDYLESPLCQQRTEPIPEGD-----YLN RVIT  
 KLLA0C08888g WGESNNLRVMPPELLCFIFDMM MTEY-KFY SRAKEEVL PKTTDNESISPPCFLQHVVN

Cons \* \* \* : \* : \* . . \* : \* : : . : \* : : .

YGR032w PLYRFIRSQVY EI-VDG--RYVKSEKDH NKVIGYDDVNQLFWY PEGIAKIVMEDGT-  
 YLR342w PIYHFIRNQVY EI-VDG--RFVKRERDHNKIVGYDDL NQLFWY PEGIAKIVLEDGT-  
 CAGL0G01034g PLYRFIRNQVY EI-VDG--RYVKREKDH NKVIGYDDVNQLFWY PEGIAKIVFEDST-  
 YMR306w PLYEFRLRGQVYK KDAKG--NWKRREKDH KNIGYDDINQLFWY PEGFERIILNNGE-  
 CAGL0M13827g PLYYFIRDQLFEK-KQESL KWIRKSLDHNDIGYDDINQLFWY PEGIERIVLKD GQ-  
 KLLA0C14069g PIYKFIRDQVY TLD SQG--KLIRREKDH KDIGYDDVNQLFWY PEGIERIVLKS GA-  
 DEHA0A07436g PIYSYIRNQY YEL-VNN--VWKKSEKDH SDIGYDDVNQFFWY RGNLEKIMLLD KS-  
 YALI0C01411g PLYSFYRNQRY EN-FEG--KFIDRERDHNK VIGYDDINQLFWY RQGLLR IKLKG GTN  
 YALIOE21021g PLYRFIRGQGY EI-FDG--KFVKRERDHNK VIGYDDVNQLFWY PEGIERITFEDES-  
 DEHA0C02112g PLYRFIRSQVY EI-YEG--RFVKREKDH NKVIGYDDVNQLFWY PEGISRI ICEDGS-  
 KLLA0B05841g PIYRFIRSQVY EV-VDG--RYVKREKDH NKVIGYDDVNQLFWY PEGIAKIVILEDGT-

CAGL0K04037g PIYQFIRNQVYEI-VDG--RYVKREKDHNKIIGYDDVNQLFWYPEGITKIVLEDGT-  
 KLLA0C08888g PLYEFCQFQI-----TWNKSNHSHIIGYDDINQCFWLSLKTINQFKLKDGT-

Cons \*: \* : : \* . \*\* . : : \* \* \* \* \* \* \* \* : : .

YGR032w RLIDLPAEERYLKLGEIPWDDVFFKTYKETRSWLHLVTNFNRIWIMHISVYWMYCA  
 YLR342w KLIELPLEERYLRLGDVVWDDVFFKTYKETRTWLHLVTNFNRIWVMHISIFWYFAY  
 CAGL0G01034g KLIEIPAEERYLRLGEVSWDDVFFKTYKETRSWFHMITNFNRIWIMHVTIFWYVAY  
 YMR306w RLVDKPLEERYLYFKDVAWSKVYFKTYRETRSWKHCFNFNRFWIIHFAPFWFFTTF  
 CAGL0M13827g RLVDI PMQRYLFLKDVVWSKAFYKTYIEKRSWMHCITNFNRFWIIHLAPFWFFTSF  
 KLLA0C14069g RLVDTPLENRFLLLKDVNWDVVFYKTYSETRTWLHSMNFNFNRIWIHFATFWFFTSF  
 DEHA0A07436g LLYEYPRNQRYTKFKSIKWKKLFYKTYSERRTWLHLFTNFSRVVVIHVTMFWYYTCE  
 YALI0C01411g RILDLPASERYNALSTVDWTTCTFYKTYHESRSWMHLAVNFHRIWIIHFCVFWFYTAF  
 YALIOE21021g RLVDPVQSERYMKLGDVIWVKVFFKTYKETRSWFHVFVFNFNRIWIIHVTFYWYYASF  
 DEHA0C02112g RLVDI PQEERYLKLGEIEWSNVFFKTYKEIRTWLHLLTNYNRIWVIHGTVYWMYTAY  
 KLLA0B05841g RLIDLPAEERYLRLGDVIWDDVFFKTYKETRSWFHLVTNFNRIWVHASIYWMYTAY  
 CAGL0K04037g KLTDIPSEERYLRLGEVAVNDVFFKTYKETRTWLHLVTNFNRIWIMHVSVYWMYVAY  
 KLLA0C08888g NYADLPRDMKYSKFTQIEWSKSLRKYIESRTWYHLITNFNHRIWTIHVATFWYFSVI

Cons : \* . : : : \* : \* \* \* \* \* \* \* . \* : \* . \* : \* : \* :

YGR032w NAPTFYTHNYQQQLVDNQPLAAYKWATAALGGTVASLIQVAATLCEWSFVPRKWAGA  
 YLR342w NSPTFYTHNYQQQLVDNQPLAAYKWASCALGGTVASLIQIVATLCEWSFVPRKWAGA  
 CAGL0G01034g NSPTFYTHNYQQLVNNQPPAAYKWASAALGGTVASFIQLLATICESFVPRKWAGA  
 YMR306w NSPTLYTKNYIQLLNQPTPQVRLSVIAFGGTIACLVQILATVFEWGFVPREWPGA  
 CAGL0M13827g NSPTLYTKNYIQLLDNQPTMQARLSVMAFGGSITCLIQIFATIFEWQFVPRTWPGA  
 KLLA0C14069g NAPTLYSKNYIQTLDNPPTPQSRFSAIALGGAITCLVQIVATFAEWSFVPRDWPGA  
 DEHA0A07436g NSPTIYTKNYVQLLDNKPAPQVQWSAVALGGTVACLTLTILATLIEWLFWPRKWPGA  
 YALI0C01411g NTPSLYTENYSQELDNLPAPAHVRI SVVGLGGVMAPLICLVAVMGEAVFVPMRWGRE  
 YALIOE21021g NSPTLYMKNYVPTLDNHPPACKWGAGAI GGVIATGLQIIATLSEWAFVPRKWAGA  
 DEHA0C02112g NSPTLYTKNYAQPLNNQPTASSRWASAAIGGVLASFIQIMATVCEWLFVPREWAGA  
 KLLA0B05841g NAPTLYTHNYQQLLNKNPLAAYRWASSALAGSLATIIQIVATISEWFFVPRNWAGA  
 CAGL0K04037g NSPTFYTHNYQQLVNNQVPAYRWASAALAGTVASAIQLFATVCEWFFVPRKWAGA  
 KLLA0C08888g NLKPLFTKHYIQTLDNDPELFLVFSVMSLAGTFSCCLITISAIIGEMFFVPRDSNLRK

Cons \* . : : . \* : : \* \* . . : : \* . \* \* \* \* :

YGR032w HLSRRFWFLCVIMGINLGPVIFVFAYDKDT---VYSTAAHVVGAVMFFVAVATLVE  
 YLR342w HLSRRFWFLCIIIFGINLGPIIFVFAYDKDT---VYSTAAHVVAAMFFVAVATIIIF  
 CAGL0G01034g HLSRRFWFLCLIFAVNLGPIIFVFAYEKDT---VQSKAGHAVAAMFFVAVATLLE  
 YMR306w HLSSRMIGLLFCLAINLGPVSVYVVGFFFDL---VHKSAYSIVSIVQLIIAFLTTFF  
 CAGL0M13827g HLTKRFIGLILCLLINFGPSIYIFGFFDLN---VHKSACILSICQLIIAVFTTFF  
 KLLA0C14069g HLSKRMIGLFLCFLNFGPSVYVVGFFFDL---VHKSAYSIVSIIQFTIAIITTF  
 DEHA0A07436g HLFFKLVLVLLVITIIINAGPSVYIFLFLPID---KYSKIGHIVGIIQFVISIITFLY  
 YALI0C01411g RVAYRFLCLLLVTSLNAAPAVFVLLWYSRT---EENGQALMISIIQLVIAFVTVLY  
 YALIOE21021g HLTRRLMFLIGILIVNLVAPVYVVGVTGTT---HESTSALAVGIVGFIISIFTFIF  
 DEHA0C02112g HLTRRLLEFLIIIFIVNLVVPVFTFYAGLQ---TVSKAAHAVSIVGFFIAIATLIF  
 KLLA0B05841g HLSRRFWFLVGLVNLGPIIFVFAYDPLT---VYSKAALVVSAMFFVALITIIIF  
 CAGL0K04037g HLSRRFWFLCGILVNLGPLIFVFAYEKDT---VQSKAGHAVAAMFFVAVATVLE  
 KLLA0C08888g PTKSRLFILIFMLLLNIIIPSGILSLFHISRKRLINENILTIISFISLTVSIVTTIF

Cons : : \* : \* . : : . : : : : \* . :

YGR032w FSVMPGLGGLFTSY--MK-----KSTRSYVA  
 YLR342w FSIMPLGGLFTSY--MK-----KSTRRYVA  
 CAGL0G01034g FSVMPGLGGLFTSY--MQ-----KSTRRYVA  
 YMR306w FAVRPLGGLFRPY--LN-----KDKKHRRYIS  
 CAGL0M13827g FAIRPLGGLFGTY--FN-----KSKNKRRYIS  
 KLLA0C14069g FSIKPLGGLFVSY--LQ-----RGKTKRKYVS  
 DEHA0A07436g FAIESPNRFLNFFF--LK-----KNS-NIIK  
 YALI0C01411g FAFTPLKSLFTFF--PK-----DKFNRRQLP  
 YALIOE21021g FSIMPLGGLFTSY--MK-----KSTRRYVA  
 DEHA0C02112g FAIMPLGGLFTSY--MN-----KRSRKYLA  
 KLLA0B05841g FSIMPLGGLFTSY--MK-----KSTRKYVA

CAGL0K04037g FSIMPLGGLFTSY--MQ-----KSSRRYVA  
 KLLA0C08888g LSIVPLSKIDTIFCYITRAYS PKTRGINS PDFGTGSRIGGCNSTDWNLNLSNVGSCDS

Cons : . . : :

YGR032w SQTFTASFAPLHGLD-RWMSYLVVWTVFAAKYAESYFFLILSLRDPPIRILSTTSM-R  
 YLR342w SQTFTAAFAPLHGLD-RWMSYLVVWTVFAAKYSESYFFLVLSLRDPPIRILSTTAM-R  
 CAGL0G01034g SQTFTASFAPLHGLD-RWLSYLVVWTVFAAKYAESYFFLILSLRDPPIRILSTTTM-R  
 YMR306w SQTFTASFPKLTGRS-KWFSYGLWVVFVYLAKEYIESYFFLTLSLRDPPIRVLSIMDLR  
 CAGL0M13827g SQTFTASFPKLSGRS-RLFSCGLWIFVFIKAYVESYFFLTLSLKDPPIRALSILDLSR  
 KLLA0C14069g SQTFTASFPELTGRS-KWFSRGLWFCVFCVCKFIESYFFLTLSLRDPPIRALSTMDMTR  
 DEHA0A07436g TEIFTSSFPKHLHRN-QIYSYLLWVCVFLAKFSES YFFLTLSLRDPPIRVLSIMEMTR  
 YALI0C01411g TKFFASSFPPLKGNDRWMSYGLWVCVFAKYIESYFFMILSLKDPPTRELGLVEYDK  
 YALIOE21021g SQTFTNSYPRLEFHD-KIMSYLLWVCVFGAKLSESYFFLILSLRDPPIRDLQMKM-R  
 DEHA0C02112g SQTFTANFNKLRGLD-MWMSYLVWVAVFAAKFAESYFFLTLRDPPIRILSTTTM-R  
 KLLA0B05841g SQTFTASFYQLKGLD-MWMSYLLWVTVFAAKFSES YFFLTLSLRDPPIRILSTTVM-R  
 CAGL0K04037g SQTFTASFAPLQGLD-RWLSYLVVWTVFAAKYSESYFFLILSLRDPPIRILSTTTM-R  
 KLLA0C08888g INPFTENWSQFDS DANLCSVGLWVFIWTSKLVETIYFFLCTSIKNPARDLFQSNLN-

Cons : \* : : . \* : \* . : . \* \* : \* : \* \* \*

YGR032w CTG-EYWWG----NKICKVQPKIVLGLMIATDFILFFLD TYLWYIVVNTVFSVGKSF  
 YLR342w CTG-EYWWG----AVLCKVQPKIVLGLVIATDFILFFLD TYLWYIIVNTIFSVGKSF  
 CAGL0G01034g CTG-EYWWG----SKLCRHQSKIVLGLMIATDFILFFLD TYLWYIVVNTVFSVGKSF  
 YMR306w CQG-EYLLG----PILCKWQAKITLVLMLLSDLGLFFLD TYLWYIICNCFIVLSF  
 CAGL0M13827g CRG-DFLLG----RSLCRWQSKITLLLILLSDLT LFFLD TYLWYIICNCFIVLSF  
 KLLA0C14069g CIG-DKILG----RLVCRWQSSITLFLMIVTDLV LFFLD TYLWYIICNCFIVLSF  
 DEHA0A07436g CKG-DIFLG----NLLCKQARFTLILLYVTDLV LFFLD TYLWYIICNCFIVLSF  
 YALI0C01411g CVG-AEYVG----KILCKYQPLFVLACMFVTELV LFFLD TYLWYIIFNTFVSIRSV  
 YALIOE21021g CFG-EKWFGEVYHDALCKVQPQITLGLMYATDL LFFLD TYLWYIICNCFIVSVARF  
 DEHA0C02112g CTG-EVWFK----NELCKHQAKIVLGLIYAVD LLLFFLD TYMWWIIVNCFIVSVGRSF  
 KLLA0B05841g CTG-DYGYK----DQLCRQPKIVLGLMIATDL LFFLD TYMWWIICNCFIVSVGRSF  
 CAGL0K04037g CTG-EYWWG----SKLCRHQSKIVLGFMIATDF LFFLD TYLWYIVVNTVFSVGKSF  
 KLLA0C08888g CSGTDTILQ----SALCRHWTKFLLLLLVATNF VLYLLD TYLWYVIYNSIFSLTRSI

Cons \* \* : \* : : \* : : : \* : \* \* \* \* \* : \* \* : \*

YGR032w YLGISILTPWRNIFTRLPKRIYSKILATTDMEI-KYKPKVLISQIWNAI IISMYREH  
 YLR342w YLGISILTPWRNIFTRLPKRIYSKILATTDMEI-KYKPKVLISQVWNAI IISMYREH  
 CAGL0G01034g YLGISILTPWRNIFTRLPKRIYSKILATTDMEI-KYKPKVLISQVWNAI IISMYREH  
 YMR306w SLGTSILTPWKNVYSRLPKRIYSKILATSEMDV-KFKAKILISQVWNAI IVISMYREH  
 CAGL0M13827g SLGVSTLTPWKNIYSRLPKRIYSKILATSEMDI-KYKPKILISQIWNAI IISMYREH  
 KLLA0C14069g SLGTSILTPWKNIYSRLPRRIYTKILATAEMDT-KFKPKILVLSQIWNNAVVISMYREH  
 DEHA0A07436g SLGISIFTPWRNIFSRPERIFSKI IYLNIGTS--KIDSALLISQIWN SIVLSMYREH  
 YALI0C01411g YLGGTLWTPWRNTFSRLPKRIYSKILSTSHLPSNRYKKS YLVSQVWN SIIITSLYREH  
 YALIOE21021g YLGISIWTPWRNIFSRLPKRIYSKILATTDMEI-KYKPKVLISQIWNAI IVISMYREH  
 DEHA0C02112g YLGISILTPWRNIFTRLPKRIYSKILATTEMEI-KYKPKVLISQIWNAI IVISMYREH  
 KLLA0B05841g YLGISILTPWRNIFTRLPKRIYSKILATTDMEI-KYKPKVLISQVWNAI IVISMYREH  
 CAGL0K04037g YLGISILTPWRNIFTRLPKRIYSKILATTDMEI-KYKPKVLISQIWNAI IISMYREH  
 KLLA0C08888g YMGMSHLTPWKNCVSLTNKIKLILPSNE----EW-NISI ISELWNEI IYSMYREN

Cons : \* : \* \* \* : \* . : \* \* : : \* : \* \* \* : : \* \* \* \* :

YGR032w LLAIHDVQKLLYHQVP---SEIEGKRTLRAPTFFV SQQDNNFET-EFFPRDSEAERR  
 YLR342w LLAIHDVQKLLYHQVP---SEIEGKRTLRAPTFFV SQQDNNFET-EFFPRDSEAERR  
 CAGL0G01034g LLAIHDVQKLLYHQVP---SEIEGKRTLRAPTFFV SQQDNNFET-EFFPRNSEAERR  
 YMR306w LLSIEHLQRLLFQQVD---SLMGDTRTLKSPTFFV AQDDSTFKSMEFFPSNSEAKRR  
 CAGL0M13827g LLSVEHVQKLIFFQQVD---SMMLDIRTLRSPTFFV IAQDDSTFKSLDFFPSNSEAKRR  
 KLLA0C14069g LISIDHVQRLLFQQVE---STFHEGRALKSPTFFV LAQDDSNFKSMEFFPRNSEARR  
 DEHA0A07436g LLSIDQVNKL VYQQINVSNEESMDKTYLRSPLFFI LQDDNSLNLDHFFTASKEAERR  
 YALI0C01411g IISQEHARLAYQQ---EIDGQGMCVLSEPKYFAS QEDQSFHN-SVFD SQTEGERR  
 YALIOE21021g LLAIEHVQKLLYHQVP---SEVEGKRTLRAPTFFI TQDDHAFET-EFFPRNSEAERR  
 DEHA0C02112g LLAIHDVQKLLYHQVP---SEVEGKRTLRAPTFFV SQQDNNFDT-EFFPRNSEAERR  
 KLLA0B05841g LLAIHDVQKLLYHQVP---SEIEGKRTLRAPTFFV SQQDNNFET-EFFPRNSEAERR

CAGL0K04037g LLAIIDHVQKLLYHQVP---SEIEGKRTLRAPTFFVSQDDNNFET-EFFPRNSEAERR  
 KLLA0C08888g LICKEHVERLIFHLTN---DD-----NLLKPSLLLSTDDHFFRS-RVFKKSKEVRRR

Cons :: : :\* :: \* \* : :\* : .\* ..\* .\*\*

YGR032w ISFFAQSLSTPIPEPLVDNMPTFTVLTTPHYAERILLSLREI IREDDQFSRVTLLEY  
 YLR342w ISFFAQSLSTPIPEPLVDNMPTFTVLTTPHYAERILLSLREI IREDDQFSRVTLLEY  
 CAGL0G01034g ISFFAQSLATPMPEPLVDNMPTFTVLTTPHYAERILLSLREI IREDDQFSRVTLLEY  
 YMR306w ISFFAQSLATPISEPVPVDCMPTFTVLPVPHYSEKILLGLKEI IREESPKSKITVLEY  
 CAGL0M13827g ISFFAQSLSTPLLDVPPVECMPTFTVLI PHYTEKILLGLREI IREESQSSKITVLEY  
 KLLA0C14069g ISFFAQSLSTPITEPIPVCEMPTFTVLI PHYAEKILLSLREI IKEESPNSKITVLEY  
 DEHA0A07436g ISFFAQSLSSPLPEFPILAI PAFTVLI PHYSEKI ILSLREI IKED-KHSKVSLLLEY  
 YALI0C01411g LSFFAQSLATPIPDNYVIDEMPTFTVLPVPHYNEKILLSLKEI IKEDGENSRVTLLLEY  
 YALIOE21021g ISFFAQSLSTPIPEPLVDNMPTF SVLVPHYSEKILLSLREI IREDDQFSRVTLLEY  
 DEHA0C02112g ISFFAQSLATPILEPLVDNMPTFTV FTPHYSEKILLSLREI IREDDQFSRVTLLEY  
 KLLA0B05841g ISFFAQSLATPIPEPLVDNMPTFTVLT PHYSERILLSLREI IREDDQFSRVTLLEY  
 CAGL0K04037g ISFFAQSLATPMPEPLVDNMPTFTVLT PHYSERILLSLREI IREDDQFSRVTLLEY  
 KLLA0C08888g LTFFAQSLHCPLPDAESIENMPTF SVLIPHYKEKIMLSLKDII KAETDNSSITLLEY

Cons ::\*\*\*\*\* \*: : : :\*:\*:\*: \*\*\* \*:\*:\*:\*:\*:\*: : \* ::\*:\*\*\*

YGR032w LKQLHPVEWDCFVKDTKILAEETAA-YE----NNE-----  
 YLR342w LKQLHPVEWECFVKDTKILAEETAA-YE----GNE-N-----  
 CAGL0G01034g LKQLHPVEWECFVKDTKILAEETAA-YE----GMDDQ-----  
 YMR306w LKHLHPTEWECFVKDTKLLSMEKSF LKEAESSHEDRLEIPDALYDRSSPLSDHTE  
 CAGL0M13827g LKYLHPPEWDCFVKDTKILSAEKKADQYHTVDESSNT---ILNKKEQQNQMFSSFES  
 KLLA0C14069g LKQLHPTEWECFVRDSKLLAIENGH-LSKELEESENN-----  
 DEHA0A07436g LKLLHSTDWELFVEDTKILSLVSSQPLDLGEADFPSE-----Q  
 YALI0C01411g LKQLHANEWDFVCDSKLMSHDFMHNNGGEEVQGSYQE-----KKG DGEDGLLN  
 YALIOE21021g LKQLHPVEWDCFVKDTKILAEETAG-FGEGSNDD-----  
 DEHA0C02112g LKQLHPVEWECFVKDTKILAEETAA-YENGDD-----  
 KLLA0B05841g LKQLHPVEWDCFVKDTKILAEETAA-FE----GNE-E-----  
 CAGL0K04037g LKQLHPVEWECFVKDTKILAEETAA-YE----NEETQ-----  
 KLLA0C08888g LKLIYPTWDSFIEETNKLMDSVEAGVSDSNTASAD-----REEEEKQTDVSDN

Cons \*\* :. :\*: \*: :. : :

YGR032w --DEPEKE-DALKSQIDDLP-FYCIGFKSAAPEYTLRTRIWASLRSQTLYRTISGFM  
 YLR342w ---EAEKE-DALKSQIDDLP-FYCIGFKSAAPEYTLRTRIWASLRSQTLYRTISGFM  
 CAGL0G01034g ---DPEKE-DALKNQIDDLP-FYCIGFKSAAPEYTLRTRIWASLRSQTLYRTVSGFM  
 YMR306w SRKLPTE-DDLIKEKINDLP-FSYFGFNSSEPSYTLRTRIWASLRTQTLYRTLSGFM  
 CAGL0M13827g VGSISTE-RDLLNEQMKDMP-YRCFGFCSSENIYTI RTRIWASLRSQTLYRTITGFM  
 KLLA0C14069g ---SNKKDDSYIQEKISDLP-FYSVGFNDSDPRYTLRTRIWASLRTQTLYSTISGFM  
 DEHA0A07436g LLNHKHE-SDLVNNQISDLP-Y YCVGFKDSSPEYTLRTRIWSSLRCQTLFRTISGFM  
 YALI0C01411g VPEVIHK-RDQKSGKYDNL P-Y YCVGFKFSSPENQMRTRIWASLRCQTLYRTVCGFM  
 YALIOE21021g ---LAEKDSDEVKAKIDDLP-FYCIGFKSAAPEYTLRTRIWASLRSQTLYRTVSGFM  
 DEHA0C02112g ---PEKLSE-DGLKSKIDDLP-FYCIGFKSAAPEYTLRTRIWASLRSQTLYRTVSGFM  
 KLLA0B05841g ---DSEKE-GGMKSQIDDLP-FYCIGFKSAAPEYTLRTRIWASLRSQTLYRTVSGFM  
 CAGL0K04037g ---DPEKS-DALKTQIDDLP-FYCIGFKSAAPEYTLRTRIWASLRSQTLYRTVSGFM  
 KLLA0C08888g EEVARNITMNLCKSKNEGVNLFKFTGFKLEVPEQTIRTRIWASLRTQTLYRTISGFM

Cons . . : .: : \*\* :\*\*\*\*\*:\*\*\* \*\*\*: \*: \*\*\*

YGR032w NYSRAIKLLYRVE-----NPE---IVQM  
 YLR342w NYSRAIKLLYRVE-----NPE---IVQM  
 CAGL0G01034g NYARAIKLLYRVE-----NPE---IVQM  
 YMR306w NYSKAIKLLYRIE-----NPS---LVSL  
 CAGL0M13827g NYSKAIKLLYRIE-----NPS---MVAL  
 KLLA0C14069g NYAKAIKLLYRIE-----NPS---MVHM  
 DEHA0A07436g NYEKAIKLLYKLE-----NYD---L---  
 YALI0C01411g NYSRAIKLLYNVE-----NPE---LLHH  
 YALIOE21021g NYSRAIKLLYRVE-----NPE---VVQM  
 DEHA0C02112g NYARAIKLLYRVE-----NPE---LVQY  
 KLLA0B05841g NYARAIKLLYRVE-----NPE---IVQM



CAGL0K04037g NYARAIKLLYRVE-----NPE---IVQM  
 KLLA0C08888g KYLDAIKSLHILEDTKDTHKSVLNLRNVKHRTKDQHCFQQLRSNSKKNPDYKSCAKS

Cons : \* \*\*\* \* : \* \* .

YGR032w FGGNADGLERELEKMARRKFKFLVSMQRLAKFKPHELENAEFLLRAYPDLQIAYLDE  
 YLR342w FGGNAEGLERELEKMARRKFKFLVSMQRLAKFKPHELENAEFLLRAYPDLQIAYLDE  
 CAGL0G01034g FGGNAEGLERELEKMARRKFKFLVSMQRLAKFKPHELENAEFLLRAYPDLQIAYLDE  
 YMR306w YRGNNEALENDLENMASRKRFRMVVAMQRYAKFNKDEVEATELLLRAYPNMFI SYLLE  
 CAGL0M13827g YGDNVPLENDIE SMSNRKFKMIVAMQRYLNF DENEREGVELLLKAFPYLCISFLEA  
 KLLA0C14069g YADNIDGLENELELMARRKFKMVVAMQRYAEFNQSEREA VDFIFKVFPSISISYLT  
 DEHA0A07436g DSN SYFDVDTELNEFVQRKFKLLISMQRFOKFHENELNDAELLFGIYPQIQISYLEE  
 YALI0C01411g CQNDTRVFNQHLDMISRKRFRLLVSMQRLSKFDVQETENLEYLLKMHPELQVAYLDE  
 YALIOE21021g FGGNTEKLERELEERMARRKFKFIVSMQRLTKFKPDEMENTEFLLRAYPDLQIAYLDE  
 DEHA0C02112g FGGDPEGLELALAKMARRKFRFIVSMQRLAKFKDDEMENA EFLLRAYPDLQIAYLDE  
 KLLA0B05841g FGGDTEGLERELEERMARRKFKFLVSMQRLAKFKPHELENAEFLLRAYPDLQIAYLDE  
 CAGL0K04037g FGGNAEGLERELEKMARRKFKFLVSMQRLAKFKPHELENT EFLLRAYPDLQIAYLDE  
 KLLA0C08888g FKQRTDSADDKSTSIALKKFHMICSMQRMSEFTDDEKADRNVLLTAFPSLKIAYIVS

Cons : : : \*\* : : : \* \* : : . \* : : : :

YGR032w EPP-LNEGEEPRIYSALIDGHCEI-LEN-GRRRPKFRVQLSGNPILGDGKSDNQNHA  
 YLR342w EPP-LTEGEEPRIYSALIDGHCEI-LDN-GRRRPKFRVQLSGNPILGDGKSDNQNHA  
 CAGL0G01034g EPP-LNEGEEPRIYSALIDGHCEI-LEN-GRRRPKFRVQLSGNPILGDGKSDNQNHA  
 YMR306w ELE--QNESEKTYYSCLTNGYAEFDEES-GLRKPFIKIRLSGNPILGDGKSDNQNHS  
 CAGL0M13827g HKE--GDDKDLTYYSCLTNGNAPIDPKT-NFRTPPIYRIKLSGNPILGDGKSDNQNHS  
 KLLA0C14069g EKDPNNVTGEP TFYSCLCDGSCDVD-ESTGLRIPRFKIRLSGNPILGDGKSDNQNHS  
 DEHA0A07436g EV---NGDQTTYSTLLNV-SEK-DSY-GNYKKKYRVKLSGNPILGDGKSDNQNNC  
 YALI0C01411g DPS--QGREPIVYASLIDGSDI-LDN-GRRKPRYRIRLSGNPILGDGKSDNQNVA  
 YALIOE21021g EPP-LNEGEEPRLFSALIDGHCEI-LEN-GRRRPKFRVQLSGNPILGDGKSDNQNHA  
 DEHA0C02112g EPA-LNEDEEPRVYSALIDGHCEM-LEN-GRRRPKFRVQLSGNPILGDGKADNQNHA  
 KLLA0B05841g EPP-LNEGEEPRIYSALIDGYCEI-MEN-GRRRPKFRVQLSGNPILGDGKSDNQNHA  
 CAGL0K04037g EPP-LNEGEEPRIYSALIDGHCEM-LEN-GRRRPKFRVQLSGNPILGDGKSDNQNHA  
 KLLA0C08888g ELD-KASGRK-IYYSVIDGYCDI-DGD-GEYIPKYKIELSGDPILGNGKSDNQNHS

Cons . . : : : . . : : . \*\* : \*\* : \*\* : \*\* .

YGR032w LIFYRGEYIQLIDANQDNYLEECLKIRSVLAEFEELGIEQIH--PYTPGLKYEDQ-S  
 YLR342w LIFYRGEYIQLIDANQDNYLEECLKIRSVLAEFEELNVEQVN--PYAPGLRYEEQ-T  
 CAGL0G01034g LIFYRGEYIQLIDANQDNYLEECLKIRSVLAEFEELNAEQVY--PSPGVKYEDQ-N  
 YMR306w IIFYRGEYIQVIDANQDNYLEECLKIRSVLSEFEELNPT--IPYIPGIEYEEE--  
 CAGL0M13827g IIFYRGEYIQVIDANQDNYLEECLKIRSVLSEFEELNPT--IPYIPGIDYAE--  
 KLLA0C14069g IIFYRGEYIQVIDANQDNYLEECLKIRSVLSEFEELNPT--IPYIPGIEYSE--  
 DEHA0A07436g IIFYRGEYIQVIDANQDNYLEECLKIRSVLSEFEELNPT--IPYIPGIEYSE--  
 YALI0C01411g LIFHRGEYIQLVDANQDSYIEECLKIRSVLAEFEELNVEQVN--PYAPGLRYEEQ--  
 YALIOE21021g LIFHRGEYIQLIDANQDNYLEECLKIRSVLAEFEELNVEQVN--PYAPGLRYEEQ--  
 DEHA0C02112g LIFHRGEYIQLIDANQDNYLEECLKIRSVLSEFEELNVEQVN--PYAPGLRYEEQ--  
 KLLA0B05841g LIFYRGEYIQLIDANQDNYLEECLKIRSVLAEFEELNVEQVN--PYSPGLKYEDQ-G  
 CAGL0K04037g LIFYRGEYIQLIDANQDNYLEECLKIRSVLAEFEELNAEPVY--PYTPGVKYEDQ-K  
 KLLA0C08888g IIFTRGEYIQLIDANQDNYLEECLKIRSVLAEFEELNVEQVN--PYTPGVKYEDQ-K

Cons : \*\* \*\*\*\*\* : \*\*\*\*\* . \* : \*\*\*\*\* : . : \* \*\* : :

YGR032w T-NHPVAIVGAREYIFSENSGVLGDVAAGKEQTFGTLFARTLAQIGGKLHYGHPDFI  
 YLR342w T-NHPVAIVGAREYIFSENSGVLGDVAAGKEQTFGTLFARTLSQIGGKLHYGHPDFI  
 CAGL0G01034g T-NHPVAIVGAREYIFSENSGVLGDVAAGKEQTFGTLFARTLAQIGGKLHYGHPDFI  
 YMR306w --PPPIAIVGSREYIFSENIGVLGDIAGKEQTFGTLFARTLAQIGGKLHYGHPDFL  
 CAGL0M13827g --PAPVAIVGAREYIFSENIGVLGDIAGKEQTFGTLFARTLAQIGGKLHYGHPDFI  
 KLLA0C14069g --PAPVGVGAREYIFSENIGVLGDIAGKEQTFGTLFARTLSEIGAKLHYGHPDFL  
 DEHA0A07436g --KDPVAIVGAREYIFSENIGVLGDIAGKEQTFGTLFARTLAQIGGKLHYGHPDFL  
 YALI0C01411g TLANPVAFIGSREYIFSENIGVLGDIAGKEQTFGTLFARTLSKIGGKLHYGHPDYL  
 YALIOE21021g T-PCPVAILGAREYIFSENIGILGDIAGKEQTFGTLFARTLAQIGGKLHYGHPDFL  
 DEHA0C02112g P-TTPVAILGAREYIFSENSGVLGDVAAGKEQTFGTLFARTLAQIGGKLHYGHPDFL  
 KLLA0B05841g N-NHPVAIVGAREYIFSENSGVLGDVAAGKEQTFGTLFARTLAQIGGKLHYGHPDFI

CAGL0K04037g T-NHPVAIVGAREYIFSENSGVLGDVAAGKEQTFGTLEFARTLAQIGGKLHYGHPDFI
KLLA0C08888g Y-TAPVAIVGTREHIFSENNGVLGDIAGKEKVFVGTFFARTLGYINSKLHYGHPDFI

Cons \*: : : \*: \*\* : \*\*\*\*\* \* : \*\*\* : \*\*\*\*\* : . \*\*\* : \*\*\*\*\* . \* . \*\*\*\*\* : :

YGR032w NATFMTTRGGVSKAQKGLHLNEDIYAGMNAVLRGGRIKHCEYYQCGKGRDLGFGTIL
YLR342w NATFMTTRGGVSKAQKGLHLNEDIYAGMNAMLRGGRIKHCEYYQCGKGRDLGFGTIL
CAGL0G01034g NATFMTTRGGISKAQKGLHLNEDIYAGMNALLRGGRIKHCEYYQCGKGRDLGFGTIL
YMR306w NGIFMTTRGGLSKAQRGLHLNEDIYAGMNAICRGGKIKHSDYYQCGKGRDLGFGSIL
CAGL0M13827g NAIFMTTRGGLSKAQKGLHLNEDIYAGMIAICRGGKIKHSDYVQCGKGRDLGFNSIL
KLLA0C14069g NAIFMTTRGGISKAQKGLHLNEDIYAGMTVLCRGGRIKHSDYFQCGKGRDLGFNSIL
DEHA0A07436g NGIFMTTRGGVSKAQKGLHLNEDIYAGMTAVCRGGRIKHCDYYQCGKGRDLGFGTIL
YALI0C01411g NATFMVTRGGVSKAQKGLHLNEDIYAGMNALMRGGRIKHSEYVQCGKGRDLGFGSIL
YALIOE21021g NSIFMCTRGGVSKAQKGLHLNEDIYAGMNALLRGGRIKHCEYYQCGKGRDLGFGSIL
DEHA0C02112g NATFMFTRGGVAKAQKGLHLNEDIYAGMTAIMRGGRIKHCEYYQCGKGRDMGFGSIL
KLLA0B05841g NATYMTTRGGVSKAQKGLHLNEDIYAGMTAMLRGGRIKHCEYYQCGKGRDLGFGTIL
CAGL0K04037g NATFMTTRSGLSKAQKGLHLNEDIYAGMNALLRGGRIKHCEYYQCGKGRDLGFGTIL
KLLA0C08888g NAIFITTRGGVSKAQRGLHLNEDIYVGMNVLMRGGRIKHA EYYQCGKGRDLGFNSIL

Cons \* . : : \*\* . \* : : \*\*\* : \*\*\*\*\* . \*\* . : : \*\*\* : \*\*\* . : \* \*\*\*\*\* : . \* . : \*\*

YGR032w NFTTKIGAGMGEQMLSREYYLLGTQLPIDRFLTFYYAHPGFHLNLFIQLSLQMFML
YLR342w NFTTKIGAGMGEQMLSREYYLLGTQLPVD RFLTFYYAHPGFHLNLFIQLSLQMFML
CAGL0G01034g NFTTKIGAGMGEQMLSREYYLLGTQLPIDRFLTFYYAHPGFHLNLFIQLSLQMFML
YMR306w NFTTKIGAGMGEQMLSREYYLLGTQLPMDRFLSFFY AHPGFHLNLFISFSVQLFFV
CAGL0M13827g NFTTKIGAGMGEQMLSREYYLLGTQLPMDRFLSFFY AHPGFHLNLFISLSLHLFFM
KLLA0C14069g NFTTKIGAGMGEQMLSREYYLLGTQLPIDRFLSFFY AHPGFHLNLFITLSVQLFFV
DEHA0A07436g NFTTKIGAGMGEQILSREYYLLGTQLPIDRFLSFFY AHPGFHLNLFIMLSVHLFFM
YALI0C01411g NFSTKIGAGMGEQMLSREYYLLGTQLPLDRFLSFFY AHPGFHLNMFIMSVEFFLI
YALIOE21021g NFTTKIGTGMGEQMLSREYYLLGTQLPLDRFLSFFY AHPGFHLNLLIITSVQFMFI
DEHA0C02112g NFTTKIGAGMGEQMLSREYYLLSTQLPLDRFLSFFY GHGPFHLNMFQLSLQVFMFL
KLLA0B05841g NFTTKIGAGMGEQMLSREYYLLGTQLPFDRFLSFFY AHPGFHLNLFIQLSLQVFMFL
CAGL0K04037g NFTTKIGAGMGEQMLSREYYLLGTQLPVD RFLTFYYAHPGFHLNLFIQLSLQMFML
KLLA0C08888g NFTTKIGSGMGEQMLSREHFYIGTSLPLDRFLSFFY AHPGFHLNLFVIYISLCLFLI

Cons \*\*: \*\*\*\*\* : \*\*\*\*\* : \*\*\*\*\* : \* : . \* \*\* . \*\*\*\*\* : \* : . \* . \*\*\*\*\* : \* : . \* : . \* : . \* :

YGR032w TLVNLHALAHES--ILCVYDRDKPITDVLVPIGCYNFHPAIDWVRRYTLSIFIVFWI
YLR342w TLVNLSSLAHES--IMCIYDRNKPKTDVLPVIGCYNFQPAVDWVRRYTLSIFIVFWI
CAGL0G01034g TLVNLHALAHES--IICIYDKNKPKTDVLPVIGCYNFS PAIDWVRRYTLSIFIVFWI
YMR306w LLLNLGALNHEI--IACFYDKDAPITNLETPVGCYNIQPALHWVSIFVLSIFIVFFI
CAGL0M13827g LLINLGSLNHET--ILCHYDRNKSITSLQIPIGCYNLT PALHWISIFVFSIFIVFFI
KLLA0C14069g LLLNLGSLNHEV--TSCIYDHNKPIDIPIPIGCYQLKPV LHVVITFVLSIFIVFFI
DEHA0A07436g VLVNLGSLKHES--VVCMYDLNIPFTDLQVPLGCYNLQ PVLNWNVSRFVLSVFCFFI
YALI0C01411g VGINIAALYSSS--VICEYDRSAPITAARVPEGCTNVIPI IEWLERCILSIFVFFM
YALIOE21021g VMMSIGPLAHETKETICWYDKDKPITDPQT PVGCYNLKPVLDWIRRCVLSIFIVFFI
DEHA0C02112g VLNANLSLAHES--TFCIYDKNKPVTDLLL PYGCYNFDPAVDWIRRYTLSIFIVFFI
KLLA0B05841g TLVNMNSMANQS--IMCSYNKYKPIDVLPVIGCYNF EPVIDWVRRYTLSIFIVFFI
CAGL0K04037g TLVNLHALAHES--ILCIYDRNKPKTDVLPVIGCYNFS PAIDWIRRYTLSIFIVFWI
KLLA0C08888g IILNLAVLVDSS--VLCVYDPAFKQTDPEPDGCLQLVPVLYWL RRTITLLFISMF

Cons . : : . \* \* : \* \* \* : . \* : \* : : : . :

YGR032w AFVPIVVQELIERGLWKATQRRFFRHILSLSMPFEVVFAGQIYSSALLSDIAVGGARYI
YLR342w AFVPIVVQELIERGLWKATQRRFFCHLLSLSMPFEVVFAGQIYSSALLSDLAIGGARYI
CAGL0G01034g AFVPIVVQELIERGLWKATQRRFFRHILSLSMPFEVVFAGQIYSSALLSDLTVGGARYI
YMR306w AFAPLLIQEVLEKGIWRAASRFLHLLSMAPLFEVVFV CQVYSNSLLMDLTFGGAKYI
CAGL0M13827g AFAPLFVQELLEKGIWKSILRILHLLSMAPLFEVVFV CQIYSNSILSNLTFGGAKYI
KLLA0C14069g AFAPLLIQELLEKGIWKAFSR FNHLLISLAPVFEVVFV CQIYSNSLSTDVTFGD AKYI
DEHA0A07436g SFIPLIFQELIEKGIKAIYRIFH H FVSLAPFEVVFV CQIYAKSLKDNITFGGAKYV
YALI0C01411g SFVPLFIQEFSE RGF LRAATRLAKHLACL SPLFEVVFCCQIYAKALLQDITIGGARYI
YALIOE21021g SFVPLVVQELTERGVFRAAFR FARHFMSLSPLFEVVFV CQVYANSFINDLAFGGARYI
DEHA0C02112g SFIPLIVQELIERGVWKATQR FVRHILSLSMPFEVVFVAQIYSSSLFTDLTVGGARYI
KLLA0B05841g AFIPIVVQELIERGIWKAVQRFLRHLLSLSMPFEVVFAGQIY SASLLSDLTVGGARYI

CAGL0K04037g AFVPIVVQELIERGLWKATQRRFRHILSLSPMFEVVFAGQIYSAALLSDMTVGGARYI  
 KLLA0C08888g SFVPLFLQQMNDKGVLSATKRLKQLASGAIFFEIFSNRIASQALMTDIIIGDAKYL

Cons : \* \* : . . \* : . : \* : : : . : . \* \* : \* : : : : : : . \* . \* : \* :

YGR032w STGRGFATSRIPIFSILYSRFAGSAIYMGSRSMMLLFGTVAHWQAPLLWFWASLSAL  
 YLR342w STGRGFATSRIPIFSILYSRFAGSAIYMGARSMLLFGTVAHWQAPLLWFWASLSSL  
 CAGL0G01034g STGRGFATSRIPIFSILYSRFAGSAIYMGARSMLLFGTVAHWQAPLLWFWASLSAL  
 YMR306w STGRGFATRRLDFFTLYSRFVNISIYSGFQVFFMLLFAIISMWQPALLWFWITVISM  
 CAGL0M13827g STGRGLAITRISFPTLYSRFAIISIYSGIQIFLMLVFASASMWQPALLWFWISVVSLSL  
 KLLA0C14069g PTGRGFATRRLDFENDLYSRFAASSIYSGSMVFLMLLFAITLSIWQPALLWFWITVIVSL  
 DEHA0A07436g ATGRGFATSRISEFNTLYSRFYASTSIYSGSTVFLIVIFASLSMWQPSLLWFECITFVSM  
 YALI0C01411g STGRGFATSRIPIFVTLYSRFATASIYFGAISLLIMIVISTTMWRVALLWFWVTAVAL  
 YALIOE21021g ATGRGFATARLPFSVLYSRFAGDSIYLGARSTLMLLFGTIAMWQAALLWFWVTLIAM  
 DEHA0C02112g STGRGFATSRIPIFSILYSRFADSSIYLGARSMIIIVFGSVSHWQAPLLWFWASLSSL  
 KLLA0B05841g STGRGFATSRIPIFSILYSRFAGSAIYMGSRSMMLLFGSTIAYWQAALLWFWASLSAL  
 CAGL0K04037g STGRGFATSRIPIFSILYSRFASSAIYMGARSMLLFGTVAHWQAPLLWFWASLSAL  
 KLLA0C08888g STTRGLSFERIPFVTLFTRFASAYSFAVMALVILGYASIVMWDVSLFFWVIFISL

Cons . \* \* \* : : \* : \* \* : : \* : . : : : \* . \* \* : \* : :

YGR032w IFAPFIENPHQFAWEDFFLDYRDYIRWLSRGNKYHRNSWIGYVRMSRSRVTGFKRK  
 YLR342w IFAPFVFNPHQFAWEDFFLDYRDYIRWLSRGNQYHRNSWIGYVRMSRARITGFKRK  
 CAGL0G01034g LFSPPFIENPHQFSWEDFFLDYRDYIRWLSRGNKYHRNSWIGYVRMARSRITGFKRK  
 YMR306w CFAPFIENPHQFAFMDFIDYKTFIHWFSGNTKYQKESWANFVKSSRSRFTGYKSK  
 CAGL0M13827g CFAPVLENPHQFSFMEFFIDYRNFYIWLATGNSKYVKESWATFTKSSRSRFTGFKRK  
 KLLA0C14069g CLAPFIENPHQFSFTNFFVDYRNVMMHWFSGGNSYQPNWANFVKDNRSRRTGYKSK  
 DEHA0A07436g CLAPFIENPHQFSWGDFFIDYREFLRWLSRGNSSWHRNSWIGFIRSHRAKITGYKKN  
 YALI0C01411g CISPFLENPHQFAWVDYDFYRNFIRWLNLRGNTKWKHSWIGYVRLIRTRITGYKSK  
 YALIOE21021g CISPFVFNPHQFAWTDFFIDYRDFIRWLSRGNKWKHSWIGYVRLRTRITGYKSK  
 DEHA0C02112g MFSPPFIENPHQFAWEDFFIDYRDFIRWLSRGNKWKHSWIGYVRLRSRRTGFKRK  
 KLLA0B05841g MFSPPFIENPHQFSWQDFFLDYRDFIRWLSRGNKYHKNSWIGYVRMSRSRVTGFKRK  
 CAGL0K04037g LFSPPFIENPHQFSWEDFFLDYRDYIRWLSRGNKYHKNSWIGYVRMARSRITGFKRK  
 KLLA0C08888g LLSPPFIENPSQYHWIEFITDYRRTLSWFLKWQ---RRVSWLKYTR-----GQNSM

Cons : : \* . : \* \* : : \* : : : \* \* : : \* :

YGR032w LVGDESEKSAGDASRAHRTNLIMAE----IIPCAIYAAGCFIAFTFINAQTGVKTTD  
 YLR342w LVGDESEKAAGDASRAHRTNLIMAE----IIPCAIYAAGCFIAFTFINAQTGVKTTD  
 CAGL0G01034g LVGDESEKAAGDASRAHRTNLILAE----IIPNAIYAAGCFVGFTFINAQTGVKTTD  
 YMR306w TVDDISEDGHSKARFNVVFFAE----LFLPFCVFLNFATAFSFINAQTGV--SD  
 CAGL0M13827g TINDISEGEMVYSTKTRVLNVFFSE----LFCILFVLVDFDTAYTFMNAQTGV--KR  
 KLLA0C14069g VIHDKSETKNKSQRPSFTNLFISE----ILIPSFLVVFSLSAYCYINSQTGV--RK  
 DEHA0A07436g ALGEVQQRINDASRRPSRWNSFIDQ----IVIPLICIVCYLVPYMFINAQNGV--SN  
 YALI0C01411g TLNEISETDSRGVMKPSLVNVFLSE----VVGTLLSACCITLPLYLFMNYQNEQ--ID  
 YALIOE21021g VLGDESEKAGDLSRAGISNVFITE----IFLPLIVA AFCFCGFTFINAQTGV--AE  
 DEHA0C02112g LIGDDSEKSAGDATRAHRNSVFFAD----FLPCLIIYTAGL FVAYTFINAQTGVY--ED  
 KLLA0B05841g LVGDESERAAGDAPRAHRNLI LFAE----LIPCIIYAAGCF TAFTFINAQTGVK--D  
 CAGL0K04037g LIGDDSEKAAGDANRAHRTNLILAE----LIPTAINAGSCFIGFTFINAQTGVKATD  
 KLLA0C08888g TQWDVED-----KTNWFENIAFINVWCHILPQGVLT VFTVPIPVLAN--INN--AE

Cons : : : . \* : : . : : \* :

YGR032w EDRVNSTLRRIICTLAPIVIDIGVLFFFCMGLSCCSGPLLGMCCCKK-TGSVMAGIAHG  
 YLR342w DDRVNSVLRRIICTLAPIAVNLGVLFFFCMGMSCCSGPLFGMCCCKK-TGSVMAGIAHG  
 CAGL0G01034g DDRVNSVLRRIICTLAPIVIDIGVLFFVFLGMSCCSGPLFGMCCCKR-TGSVMAGFAHG  
 YMR306w STPTS AVFRLLLVTF LPIFLNSIVLFLFLFWVSLFVVPGLSYCCKD-AGAVIAFIAHT  
 CAGL0M13827g VRPSNSVMRLVVVTILPILLNMVILFGQGILSVFIFPVISCCSAA-IGNQVSFVTHL  
 KLLA0C14069g VEPTQILVRLALVTFPIVGNIVTLSCLFMMSCFAGPILSCCCH-SSGTAAIAHA  
 DEHA0A07436g PSRVNPLFRIIILCFIPIIFSILITLLLFVFSCTLGPIILSCCCTR-VPSFIASF AHL  
 YALI0C01411g GTPSNPLMRLAICTLFPVIMNIVMELVLFVGVSCLVGPIFSVCCCKS-APGTFAAVVHT  
 YALIOE21021g PVIVNSILRIVICAIGPIVINAGLLLVLCISCCAGPMLGLCCKK-TGPVMAGIAHG  
 DEHA0C02112g PQEVNSVLRRLVICALAPVVIDLGCLAVCLGMACCAGPLLGMCCCKK-TGAVIAGVAHG  
 KLLA0B05841g VSVVNSVLRIVICTLGPVIVNMGVLVCLGLSCCSGPLLGMCCCKK-TGSVMAGIAHG

CAGL0K04037g DDRVNSVLRVVLCTLGPIAVDVGVLFFCLGMSCCSGPLEFGMCCKK-TGAVMAVAHAH  
 KLLA0C08888g DSRVNVLLRLIIIVSSTVTVNALTLMTIFILSSIIYGIVVLQGGKQWFPFRFLTRLTIF

Cons . . \*: : . : . : . : . : . : . :

YGR032w IAVVVHIVFFIVMWVLEGFVSFVRMLIGVVTCIQQRILFHCMTVLLLTFREKNDHAN  
 YLR342w VAVIVHIAFFIVMWVLESENFVRMLIGVVTCIQQRILFHCMTALMLTFREKNDHAN  
 CAGL0G01034g IAVIVHIGFFIVMWVLEGFNFTRMLLGVVTMIQCQRILFQCMTVLMMLTFREKNDHAN  
 YMR306w FSVLVYLLDFELMWFLOGWNFTRTLILLITCINMHLILFKVFTTIFLTREYKNNKAH  
 CAGL0M13827g ISVIIYAVDFELMWFLEGNFRTLILLITAINLHIFLFLVTTIILVTKEHKANKTN  
 KLLA0C14069g ISVILYLLDFEIIWFLEGNFTRTLVTITAINIQNLIFKVVTIMLLSREYLNRRSH  
 DEHA0A07436g MSVLINLVNFEVFLYLEGLNFTRTLGFCMIAIQKTILQFTMSICLSRELKDDYSN  
 YALI0C01411g FAVLNHLVAFELMWFQFQRWNPVTTLLGFISCTLIQDFIFKTIITLFLSRELKHDHTN  
 YALIOE21021g IAVIIHLIFFELMWFEGWSFVKGLCGVTATAIMRLIFNILTILCLTFREKNDHAN  
 DEHA0C02112g VAVIVNLIFFVVMWVLEGFVFAKMLLGVITMIYIQRLLFKFLTLCLTFREKNDKAN  
 KLLA0B05841g VAVIVHIVFFIIMWVLEAFNFTKMLIGLITCIIQCQRILVFKCMTLMLTFREKNDHAN  
 CAGL0K04037g VSVVIHIGFFIVMWVLEGFNFTRMLVGVATVIQCQRIFIFQLMTILLTFREKNDHAN  
 KLLA0C08888g ISLLSMIVAFILLSFFQRWDVKTIILGLLSSLMHKLFIYQIICGVIMPTKWNDRRN

Cons . : : \* : : : . : . : . : . : . :

YGR032w TAFWTGKWYSTGLGYMAWTQPTRELTAKVIELSEFAADFVLGHVILIFQLPVICIPK  
 YLR342w TAFWTGKWYKGMGYMAWTQPSRELTAKVIELSEFAADFVLGHVILICQLPLIIPK  
 CAGL0G01034g TAFWTGKWYSGFGYMAWTQPTRELTAKVIELSEFAADFVLGHVILFAQFPVLCIPA  
 YMR306w LAWNGKWyNTGMGWSIILQPIREYFVKIMESSYFAADFVLGHVILFIQTPILLPF  
 CAGL0M13827g IAWWTGKWyNTGFGWSIITQPFREYI IKVMEMSYFAGDFVLGHVILFLQAPIILIPF  
 KLLA0C14069g LAWWSGKWYNTKIGWSVIFQPGREFIVKIMESSLFAADYILCHFLLYAQTPIVLIPF  
 DEHA0A07436g RAWWSGKWITSGLGWLVITQPLREFIVKICEMNLYAYDFILAHCLLFVMPVLLIPF  
 YALI0C01411g RAWWSGKWFTAGLGRILTPWREMLCKKIESSMYALDYILGHALFFVQFPLILIPF  
 YALIOE21021g QAWWTGKWYAGLGWASISQPFREFVCKLIEMSLFAGDFYLGHVLLFFQLPVLVCPY  
 DEHA0C02112g TAFWTGKWYSGGLGYMAWTQPAREFCAKTIEMSEFAGDFILAHILFCQLPILCIP  
 KLLA0B05841g TAFWTGKWYGTGLGYMAWTQPSREFVAKVVELSEFAADFILGHILLFCQLPILCIPM  
 CAGL0K04037g TAFWTGKWYSGFGYMAWTQPMRELTAKVIEMSEFAADFVLGHVILFAQFPVLCIPA  
 KLLA0C08888g ESWWTGKWFRRNHSFFS---PLIEFIQVLELSIFNLDVFLVHIILLLQVPILMIPN

Cons : : \* . \* \* \* \* . : \* : \* \* : : \* : : \*

YGR032w IDKFHSIMLFWLKPSRQI-RPPIYSLKQARLRKRMVRRYCSLYFLVLIIFAGCIVGP  
 YLR342w IDKFHSIMLFWLKPSRQI-RPPIYSLKQTRLRKRMVKKYCSLYFLVLAIFAGCIIGP  
 CAGL0G01034g IDKFHSIMLFWLKPSRQI-RPPIYSLKQSRRLKRMVKRYLTLYIIVFLVFAGCIVGP  
 YMR306w IDYWHTMVLFWMNPRSIIAHKRILTRKQARLRSRIVSKYFSLYFVMLGVLLFMLIAP  
 CAGL0M13827g IDYWHSMTLFWLRPTNLIRGRRIFGRKQSRRRRNTVIRYFFFYFLTLAIFIGILLTP  
 KLLA0C14069g IDYWHSMTLFWLRPGSFLSRTTIYSAKQKRIRLSIVRRYFFLYILNLIFFLALLIIP  
 DEHA0A07436g IDKWHSSMLFWFKPTKQF-REPILSKRQRKRKILKYSFLFFTLMLCFIALILAP  
 YALI0C01411g VDRWHSMMFLFWLRPSRQI-RSPVFSTRQKRVRRIVTRYAILFALNLLAMTALFVLP  
 YALIOE21021g IDKWHSSMMFLFWLRPSRQI-RPPIFSLKQNLKRVKRYATLYFIILIIIFLVLIAP  
 DEHA0C02112g IDRWHSTMLFWLKPSRLI-RPPIYSLKQARLRKRMVRYCTLYFAVLILEFVIVVGP  
 KLLA0B05841g ADKFHSIMLFWLKPSRQI-RPPIYSLKQTRLRKRMVKKYCSLYFLVLAIFAACIIGP  
 CAGL0K04037g IDKFHSIMLFWLKPSRHI-RPPIYSLKQSRRLKRMVKRYLTLYIIVFLVFAGCIVGP  
 KLLA0C08888g VDTLHSLMLFWRKADIDA-RPIIF--KKGKSKFNANIYALVFIILAIITVVFSLP

Cons \* \* : \* \* \* . : : : \* . : : : : \*

YGR032w AVASAHVPK-DLGSGL-----TGTFHNLVQPRNVSNNDTGS-----  
 YLR342w AVASAKIHK-HIGDSL-----DGVVHNLVQPINNTTNDTGS-----  
 CAGL0G01034g AVASSHVAK-DLGHQL-----TGTFHNLVQPRNVSNNDTGF-----  
 YMR306w FFAGDFVSS-PQELLE-----GTLFEGIFQPNQNNNDTGP-----  
 CAGL0M13827g YFAHKFDIQ-ADDLLI-----GTILDGIIQPNQNNNDTGA-----  
 KLLA0C14069g MVTQNYLPK-GETLFT-----DDLISGLIQPHKQENNDTGP-----  
 DEHA0A07436g VLAESYIP--NFRRQL-----PSFIAEIIQPNHQNNNDTGD-----  
 YALI0C01411g IVFKDTLDI-ELDNHV-----PWFLRGLQQLPNARLPLG-----  
 YALIOE21021g AVAGPTMSM-DSLES LAGGKADNDSIQDTNILKGLIQVRSQNDTGRGSTGNGTEC  
 DEHA0C02112g AVASGAIDN-IEPSGL-----QDGPFKGLFQPRHKDNDTGGK-----  
 KLLA0B05841g AVAASKVDTADLGSKV-----DSAGSDIFAGLIQPRRQNNNDTGF-----

CAGL0K04037g AVAASHVPQ-DIGHTL-----TGPFHNIQPRNKSNNDTGL-----  
 KLLA0C08888g LILNQLVVI-D-SDNL-----RETTRILIQPEMSIA-----LR

Cons . : \*

YGR032w ---QMSTYKSH---YYTHTPSLK--TWSTIK  
 YLR342w ---QMSTYQSH---YYTHTPSLK--TWSTIK  
 CAGL0G01034g ---GISTYSNH---YYTHTPSLK--TWSTIK  
 YMR306w ---NAPS-----TILTTTPTLP--TFRTVA  
 CAGL0M13827g ---RAPP-----NIMRSTPKAK--PVKTVS  
 KLLA0C14069g ---NAPS-----TILRSTPPLP--VFKTVA  
 DEHA0A07436g ---NAPR-----TVLRAKPNQ-----  
 YALI0C01411g -----KLPEKKIDV-----  
 YALI0E21021g LLPTTGSWSTH--VWWTFTPSHT-TSYSTKP  
 DEHA0C02112g ---RGSSYASTTYTYYSYTPKTQKTAFASTKA  
 KLLA0B05841g ---NLSTYSGH---YFTKAPSLT--TWSTKA  
 CAGL0K04037g ---QISTYSNH---YYTHTPSLK--TWSTIK  
 KLLA0C08888g SEIGLKAYHNMMRAMFNK-PRVS----NT--

Cons \*