

# A

nematode	1	MVNFTVDEIRALMDKRNIRNMSVIAHVDHGKSTLTDLSVLVKAGILAGSKAGETRFTDTR
fruitfly	1	MVNFTVDEIRALMDKRNIRNMSVIAHVDHGKSTLTDLSVLVKAGILAGSKAGETRFTDTR
yeast	1	MVNFTVDEIRALMDKRNIRNMSVIAHVDHGKSTLTDLSVLVKAGILAGSKAGETRFTDTR
LOS1	1	MVNFTVDEIRALMDKRNIRNMSVIAHVDHGKSTLTDLSVLVKAGILAGSKAGETRFTDTR
nematode	61	KDEOERCITIKSTAISLEFEELKKDLEFVKGENQFETVEVIGKEKVNGLINLIDSPGH
fruitfly	61	KDEOERCITIKSTAISLYFEELKKDLEFVKGENQFETVEVIGKEKVNGLINLIDSPGH
yeast	61	ADPQERGTTIKSTAISLFAEMIDDDKDKEE-----AGDPFLNLIDSPGH
LOS1	61	ADPQERCITIKSTAISLYEMTDESLSKSFICAR-----DGNENLNLIDSPGH
nematode	121	VDFSSSEVTAAALARVTDGALVVVDCVSFGVCQTEVLRQAIAREIPVPLFINKMDRALLEQ
fruitfly	113	VDFSSSEVTAAALARVTDGALVVVDCVSFGVCQTEVLRQAIAREIPVPLFINKMDRALLEQ
yeast	109	VDFSSSEVTAAALARVTDGALVVVDCVSFGVCQTEVLRQALGERIPVPLVINKMDRALLEQ
LOS1	109	VDFSSSEVTAAALARVTDGALVVVDCVSFGVCQTEVLRQALGERIPVPLVINKMDRALLEQ
nematode	181	LGAEEELQTFQRIVENINVIIATYGDGGPMCPDVDPDSLGNVGFSGSLHGWAFTLKQFA
fruitfly	173	LDAEELYQTFQRIVENVNVIATYNDGGPMCEVVDPSKGSGVFGSGLHGWAFTLKQFA
yeast	169	ISCEELYQFARVVESVNVNVIISTYQK--VLGDCOVEEDKGTVFASGLHGWAFTVROFA
LOS1	169	VDGEFPYQTFSRVIEINVIIATYEP--LLGDVQVYFBKGTVFASGLHGWAFTLKQFA
nematode	241	EMYAGKFGQWQDKLMKNLWGRFFDKTKKWSCTDSS--KRGFCFVLDPIFMFD
fruitfly	233	EMYSERCFKIDVVKLMNRWLGENFNNAKTKKKWQKQEAON---KRSFCMILDPIYKVWFD
yeast	227	NRVAKKFGIDRKNMORLWGENFNPNPKTKKWSKSAATTANGNSNCRAPNNFILDPIYRIFD
LOS1	227	KMYASKFGVWESKMMERLWGENFFPDAEKWWSGKTGSP--KRGFCVFCYEPKOITA
nematode	297	AVMNKKDKTAALVEKLGDIHLANDEKDLLEGKPLMKVPMRKWLPGDQIMOMIAFHLPSPV
fruitfly	289	AEMNYKCKBECIITLEKIGVTLKEDDKKGKALLTIVMRTWLPGADALOMIAFHLPSPV
yeast	287	AVMNSKDKDWPMLAKLGVSMDKDEEKGKPLMRVMQTLPLAQNALBEMNFHLPSPK
LOS1	285	TGMINDKDKDWPMLAKLGVSMDKDEEKGKPLMRVMQTLPLAQNALBEMNFHLPSPH
nematode	357	TAQKYRMEMLYEGPHDDEAAVAKTCDPNGPLMMYIISKMVPSTDKGFRYAFGRVFSGKVA
fruitfly	349	VAQKYRMEMLYEGPHDDEAAVAKTCDPNGPLMMYIISKMVPSTDKGFRYAFGRVFSGKVA
yeast	347	TAQYRKYDLYEGMDDECAVGIRNCDDNAPLMIYVSKMVPSTDKGFRYAFGRVFSGKVA
LOS1	345	TAQRYRKYDLYEGMDDOYANAIRNCDPNGPLMLYVSKMIPASDKGRFFAFGRVFSGKVA
nematode	417	TGMKAIIQCPNYVPGKEDLYEKIIQRTILMMGRSIEPIEDIPSGNIAGLVGVDQFLVKG
fruitfly	409	TCQKCRIMCPNYVPGKEDLYEKAIQRTILMMGRVPEIEDVPSGNICGLVGVDQFLVKT
yeast	407	SGLKVRICQCPNYVPGKEDLYEKAIQRTILMMGRSIEPIEDIPSGNIGLVGVDQFLVKS
LOS1	405	TGMKVRICQCPNYVPGKEDLYEKVORTIVWNGKHOEVEDVPCGNTVAMVGIDQFTK
nematode	477	GTTT--VKAHDHNMVMKFSVSPVVRVAVAEPKNAKPDLPLKVEGLKRLAKSDPMVQCIEE
fruitfly	469	GTAAHDHNMVMKFSVSPVVRVAVAEPKNAKPDLPLKVEGLKRLAKSDPMVQCIEE
yeast	467	GTTT--SEVAHNMKVMKFSVSPVVAPEVAKVNGNDPLKLVGLKRLAKSDPMVQCIEE
LOS1	465	ATATNKEVDAHPIRAMKFSVSPVVRVAVCVAIDLPLKLVGLKRLAKSDPMVQCIEE
		* C → Y
nematode	535	SGEHIIAGAGELHLEICLKDLDEDHAC-IPLKKSDDPVVSYRETVOESNQICLSSKSPNKH
fruitfly	527	SGEHIIAGAGELHLEICLKDLDEDHAC-IPLKKSDDPVVSYRETVOESNQICLSSKSPNKH
yeast	525	SGEHIIAGAGELHLEICLKDLDEDHAC-IPLKKSDDPVVSYRETVOESNQICLSSKSPNKH
LOS1	525	SGEHIIAGAGELHLEICLKDLDODFNGGAELIKSSDPVVSFRETVOESNQICLSSKSPNKH
nematode	594	NRLHCTAOCPMPGLADDIEGCTVNAARDEFKARAKILAKVYDVTTEARKIWCFGPDTGP
fruitfly	586	NRLHCTAOCPMPGLADDIEGCTVNAARDEFKARAKILAKVYDVTTEARKIWCFGPDTGP
yeast	584	NRLFMTAEMSSELVAEIGVNPDRDFKVRARIMAEFGWDVTDARKIWCFGPDTGA
LOS1	585	NRLYMPARMPEGLABIIDGRCGPRDDEKTKRISKILAKVYDVTTEARKIWCFGPDTGP
nematode	654	NLLMDVTKGVQLNIEIKDSVVAQFGQWATREGVLSDENRGVRFNVEDVILHADAIHRGGG
fruitfly	646	NFLLDCTKRVQLNIEIKDSVVAQFGQWASKECGILADENRGVRFNVEDVILHADAIHRGGG
yeast	644	NVVDCTKRVQLNIEIKDSVVAQFGQWASKECGILADENRGVRFNVEDVILHADAIHRGGG
LOS1	645	NVVDCTKGVQLNIEIKDSVVAQFGQWASKEGPLAEENRGVFCDWLHSDAIHRGGG
nematode	714	QIIPPTARRVYASVLTAEPRLEPVYLVEIQCPVEAVGGIVGVLNRERGHVFEEQVGT
fruitfly	706	QIIPPTARRVYASVLTAKPRLMEPVYLVEIQCPVEAVGGIVGVLNRERGHVFEEQVGT
yeast	704	QIIPPTARRVYASVLTASPIQEPVILVEIOLVSEVANGGIYISVLNKKRGRHVFSBECRVGT
LOS1	705	QIIPPTARRVYASVLTAKPRLLEPVYVIEQCPVEAVGGIVSVLNKKRGRHVFSBECRVGT
nematode	774	PMEVVKAYLPVNESFGFTADLRSNTGGQAFPOCVFDPHWQVTPGDPLEAGIKPNQIVLDT
fruitfly	766	PMEVVKAYLPVNESFGFTADLRSNTGGQAFPOCVFDPHWQVTPGDPSEPSKPVAVIQLDT
yeast	764	PLYNVKAYLPVNESFGFTGELRQATGQAFPLVDPHWSP-SGDPLEPSKPGQIVC
LOS1	765	PLYNVKAYLPVNESFGFSSQPLATSGQAFPOCVFDPHWEMNSSDPLEPGCQASVIVADL
nematode	834	KRKGLKEGVPAIDVYLDKM
fruitfly	826	KRKGLKECPDLSYLDKL
yeast	824	KRKGLKEBNPVEIYEYDNL
LOS1	825	KRKGLKEAMTELSEEDKL

# B

LOS1	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
broomcorn	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
wheat	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
winter rye	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
maize	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
barley	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
tomato	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
potato	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
ice plant	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
beet	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
barrel medic	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
soybean	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
tree cotton	KEVDAHIPRAMKFSVSPVVRVAVAQCKVAVASDPLKLVGLKRLAKSDPMVVCTIEE
rice	KEVDAHIPRAMKFSVSPVVRKVKNASELPLKLVGLKRLAKSDPLVVCTIEE

\* C → Y