

im-Frame 1

MRLSSKQTVYCFTKSRLSRLKSASLCTSASNDAAEAVEIASILSKNDWKRLLETSSSELTSLNPEIVHSVLLQNSIHDPERLFSFFNWASQQSPNPQNLD SFSFLAVTLCNSKMFRKATIVLDSMVRTRRPVQAILGSIIRCWKGYEGNYVGVFDILIGCYKKMGSWNDVYVFLGAKEVGVLPF-VICLR-ISWICFGRFSMG--MLNWCLMFILLPM-LMLIVE-GILRRQKGLWIWRRRDVALVWLLIML-LVDCVKLVLLMKH-S-KTP-VGRVSTLMHILTIRLLMGFVGITDFRKQN--WRKCVVQA-ILTILLTQL-LMGSLNGGAWPRLSKSRMRWLLVELNRMCSRIMCLLVGLLRLVTRKEKLCMSRWF-LASDLMHKHLVL-SRVIVDKGIFSRPMNCLKR-RNTT-HPRCTLIMV-LVDYVTVEILVELIMFLRQ-LR-G-SPTLLCIQI--KVIFRKVDSRKQERFSTE-WRMDKWLISFVAILF-VAYVSPK-WTKQGAS-SKWLTTGG-SLMKLPGL-SMDMLRPGKWRQ-KGVSERCVVMV-LQIMLSILY-LIAFAKWEM-PRLCRHLGTCLKKVCSQT-RLTLHSSTALQQMVELMMQCNCNSLNMKRV-CLMYSLILLSFSLFSLVIWRLSTFMIRCVKRALLLILLHIMQ-LMVCVS-VTPRKLGGCLMKSHREAWHLMSRVIL-L-MDIANLEI-LRHFSYWIKCPQRVFHLIVLLIVPLLTDVKEENWTRRSLCFLKCCRRVLI PPLLSMH-SM GYARRGNQMKL-GC-KTWPVTVLHQ TIEPIQS-LIITARQEGWKKPKFSFWRCKGGIWFRML-LTTCFYMVTTD-GGKQRCLIFSSPWLQKGLNLMKLFIVLLLMLTWKKIV-LEC-SCW MKF--RMLCSIKIPLFCCWTLYAKERSFRKFQSHLKKWQNKDLSSVQLHVTSLFMVMFIR EIQRKQNGFLRAWSGSDGFQTPPL-IALLIKMMLQ TWRALTILPSKQRAELLVK

im-Frame 3

AFIFKANGLLFHEIKALSSQIGFPLYISFK-RRSRGNRFYPQ-K-LETTS-NIIRIDKQAEPRNSSLRSSPKLDS-SRTPFQFLQLGKSAIPEPSKFGFFFFSSSYFM-FEDVS-SHYCFRQHG-D-KARSGHFGFNY-VLEGL-RELCRGFRYFDWLL-ENGFLERCCLCFFGC-RSWGFAFLGDLLKVNKLDLFWKVFNGMIDAKLVPDVYTF TNVINAHCRVGDIEKAKRVFMDMEEKGCSPLVTYNVMIGGLCKAGAVDEALKLKN SMSRKGFNPDAYTYNTVINGFCRHNRFQEA KLMMEMRCAGLNP NHFAYTALIDGFIKRGSM AEFQVKDEM VACGIKPNVFTYNVLIGGASKAGDLEK GKALFDEMVLIGIGPDAQT FSLMIQS YCRQGNFLKAHELFEEMKEHNLTPTMYTYNGIISGLCHCGDLGRANYVFEAMIKVGLKPNVVMYTNLIKGH IQSRFKEARKILNRMMENGQMA DIFCCNTLLSGLCKSQMMDEARSFLVEMVDRGLKPN EITYGTLIHG YAKAGEMEAVERC FREMRSYGIAPNNAIY TILINSLCKVGNVTEALSTFRHMSEKGVLPDIKTYTALIHGLAANGRINDAMQLFSQLDEKGI VPDVFYTS LISVFSKLGDM EAALNLYDKMCQKGIAPNIVTYNAMIDGLCKLGDTEKARRVFNEIAQRGLAPNVKSYSIIIDGYCKSGNLTEAFQLLDKMP SKGVPPDSFTYCALIDGCKGGELDKALS L FSEMLQKGF DPTSSFNALINGLCKTGKPN EAMRLLEDMASNCITPNHR TYTILIDYH SKAGRMEEAEILFLEMQRRLVPNVVTYNLL LHGYRLGRKAEMFDL FESMAAKGVEPDEI IYRLIANAYLEENSLIGMLKLLDEILVKDVVFDKNPTFLLD VAVCKREEFSEVPKSLEEMAEQGLKLS PITCHKLVHGFHDKNPEKAEWILESLVRFGWIPNTTTVNSIIDKENDVANLESPNNSPKQATCGVACQV-

TM-1-Frame 1

MRLSSKQTVYCFTKSRLSRLKSASLCTSASNDAAEAVEIASILSKNDWKRLLETSSSELTSLNPEIVHSVLLQNSIHDPERLFSFFNWASQQSPNPQNLD SFSFLAVTLCNSKMFRKATIVLDSMVRTRRPVQAILGSIIRCWKGYEGNYVGVFDILIGCYKKMGSWNDVYVFLGAKEVGVLPGLACCNNFLGDLLKVNKLDLFWKVFNGMIDAKLVPDVYTF TNVINAHCRVGDIEKAKRVFMDMEEKGCSPLVTYNVMIGGLCKAGAVDEALKLKN SMSRKGFNPDAYTYNTVINGFCRHNRFQEA KLMMEMRCAGLNP NHFAYTALIDGFIKRGSM AEFQVKDEM VACGIKPNVFTYNVLIGGASKAGDLEK GKALFDEMVLIGIGPDAQT FSLMIQS YCRQGNFLKAHELFEEMKEHNLTPTMYTYNGIISGLCHCGDLGRANYVFEAMIKVGLKPNVVMYTNLIKGH IQSRFKEARKILNRMMENGQMA DIFCCNTLLSGLCKSQMMDEARSFLVEMVDRGLKPN EITYGTLIHG YAKAGEMEAVERC FREMRSYGIAPNNAIY TILINSLCKVGNVTEALSTFRHMSEKGVLPDIKTYTALIHGLAANGRINDAMQLFSQLDEKGI VPDVFYTS LISVFSKLGDM EAALNLYDKMCQKGIAPNIVTYNAMIDGLCKLGDTEKARRVFNEIAQRGLAPNVKSYSIIIDGYCKSGNLTEAFQLLDKMP SKGVPPDSFTYCALIDGCKGGELDKALS L FSEMLQKGF DPTSSFNALINGLCKTGKPN EAMRLLEDMASNCITPNHR TYTILIDYH SKAGRMEEAEILFLEMQRRLVPNVVTYNLL LHGYRLGRKAEMFDL FESMAAKGVEPDEI IYRLIANAYLEENSLIGMLKLLDEILVKDVVFDKNPTFLLD VAVCKREEFSEVPKSLEEMAEQGLKLS PITCHKLVHGFHDKNPEKAEWILESLVRFGWIPNTTTVNSIIDKENDVANLESPNNSPKQATCGVACQV-

SFNALINGLCKTGKPNEMRLLEDMASNCITPNHRITYTILIDYHSKAGRMEEAEILFLEM
QRRNLVNVVVTYNLLLHGYYRLGRKAEMFDLFESMAAKGVEPDEIIYRLIANAYLEENSL
IGMLKLLDEILVKDVVFDKNPTFLLLDVCKREEFSEVPKSLEEMAEQGLKLSPITCHKL
VHGFHDKGNPEKAEWILESLVRFGWIPNTTTVNSIIDKENDVANLESPNNSPKQATCGVA
CQV-

Figure S3 Open Reading Frames in PPR Gh_A030489 transcripts from *im* and TM-1 NILs