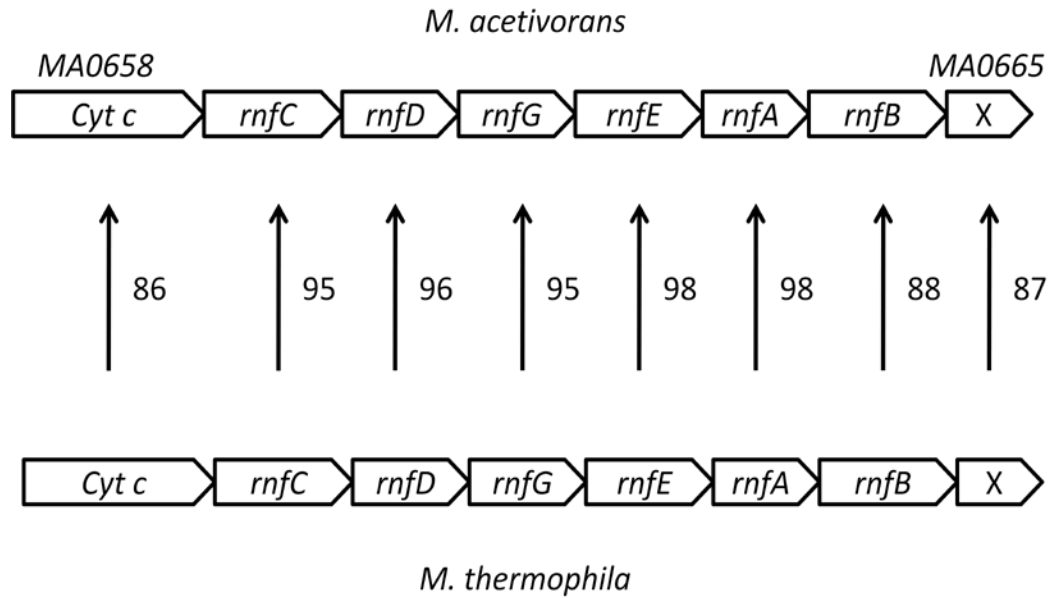


A



## B

Mt Cyt c ---MNRLNLLVSGVAVLLLLMAAGAYSSLGYAGNDQIASHYMTKGEWSDTVCGGCHFDVYE  
Ma Cyt c MVIMNRLNLLVSGVAVLLLLAAGAYSSLGYSGNDAIASHYMTKGEWSDSVCGGCHFGVYE  
\*\*\*\*\*:\*\*\*\*\*:\*\*\* \*\*\*\*\*:\*\*\*\*\*:\*\*\*  
Mt Cyt c NVNDSYHVQVDMNRWSPLTNFDLETSGEEEWVKEFGKYHPGGGPLAKYGIGIDCMMCHEQ  
Ma Cyt c NVNNSYHVQVNMSRWSPNLTNFDLETSGEEEWVKKFGMYHPGGGPLAKYGIDIDCMMCHEK  
\*\*\*:\*\*\*\*\*:\*\*\*\*\*:\*\*\*\*\*:\*\*\* \*\*\*\*\*:\*\*\*\*\*:\*\*\*\*\*:  
Mt Cyt c YGLYDSEARAIEEGDYEDANSAAMVNSSFAARTNPIQFFVYNANLLTPYPLLIVFHDN  
Ma Cyt c YGLYDFDARAEAIANGDFANANSLAVANFSATAQSDPLHLFVYTANVLTTPYPLLIVFDA  
\*\*\*\*\*:\*\*\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\*\*\*  
Mt Cyt c VNGAPQESSCAEKCHITDVEPRAVSWGDEESYAESDVHAAKGVECTECHHTEGFIITSDH  
Ma Cyt c VNGAP--ISCAQRCHRIDVETSAVMWADEEDFEESDAHAANGVECTECHHTEAFIITSDH  
\*\*\*\*\*:\*\*\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\*\*\*:\*\*\*\*\*:  
Mt Cyt c QIGRGNTSDSPDLPESHYDGTMRSCDDAECHAGISHGPFADSHMEFLACEACHIPKLPGG  
Ma Cyt c QIGRGNTSGTPDLPDSHYDDTMRSCDDAECHAGISHGPFADSHMEFLACEACHITPELPGG

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*****.:****:****.*****
Mt Cyt c      DLPGGKPLESFSWQNGEREDVYREADFQPALAWYNGTFGDVLPVDTRNDTDVMLTPFNN
Ma Cyt c      DLPGGNVLESFSWQNGEREDVYRDSDFQPALAWYNGNFGDVLPVDTRNDTDVKVTPFNN
*****.:*****.:*****.*****.:*****

Mt Cyt c      ITGTWWDAGTDPEVLANPNTSISTGDPPIPVQYVKAADANGDGEVTVEEMQAYDADGDGEA
Ma Cyt c      ITGTWWDAGTDPEVLANPNTSISTGDPPIPVQYVKAADANGDGEVTVEEMQAYDADGDGEA
*****

Mt Cyt c      DYPNAVLRTVELYYQVVHSIVSSDIGLADPYTCKDCHGNEAVIDWAALGYEQDPGGESSA
Ma Cyt c      DYPNAVLRTVELYYQVAHSIVSSDIGLADPYTCKDCHGNEAVIDWAALGYEQDPGGESSA
*****

Mt Cyt c      VKSIAVTYDRPKPVEVETEPAX
MA cyt c      VKSIAVTYDKPRPVEVETEPAL
*****.:*****

Mt RnfC      -----LSDVIKIDKLPEKAIIPMRQHDGIACAPLVKKGDEVIVGQKLGECEGS
Ma RnfC      MKRSLHSKEVANLSDVIKIDKLPEKAIIPMRQHDGIACAPLVKKGAEVIVGQKLGECEGS
*****

Mt RnfC      DLAYVHSPFCGTVNSIGLMPNPSGKRILSVVLTPECEQTVDFIPEKNVPPSRLIEIIEKE
Ma RnfC      DLAYVHSPFCGTVNSIELMPNPSGKRILSVVLTPECAQTVDFVPEKDAPPSRLIEIIEKE
*****

Mt RnfC      AGIVEYYEKPTYLALKPGKRIDTLLMNATFPLITHAYLSSLDKVLEGFKLMLEASGIPRG
Ma RnfC      AGIVEYYEKPTYLALKPGKRIDTLLMNATFPLITHAYLSSLDKVLEGFKLMLEASGISRG
*****

Mt RnfC      VIVLRADDKESIKAFKNAKVDGKPLTVAPIVGMRHADYYLEDVEDQIIVVAAGNITYTPT
Ma RnfC      VIVLRADDKESIKAFKNAKVDGKPLTVAPIVGMRHADYYLEDVEDQIIVVAAGKITYTPT
*****

Mt RnfC      MMNLLSANVMGRKLLLGHELDPDVHVVVCGVKSAAVYDAINEGKPYLESAVTVTGAVNNP
Ma RnfC      MMNLLSANVMGRKLPLGYEPPDVHVVVCGVKSAAVYDAINEGKPYLESAVTVTGAVNNP
*****

Mt RnfC      KTVIVKFGTPIKDVIDACGGYKGEPGKVIINGSMGGVAVYTDEVPVVKNTVGIVVQTEAE
Ma RnfC      KTVIVKFGTPIKDVEIACGGYKGEPGKVIINGSMGGVAVYTDEAPVVKNTVGIVVQTEAE
*****

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|         |                                                              |
|---------|--------------------------------------------------------------|
| Mt RnfC | VLRDEATVCIHCARCVDVCPMNLLPGRIAAMADQGMFDRCKDYFALNCIECGECAVVCPA |
| Ma RnfC | VLRDEATVCIHCARCVDVCPMNLLPGRIAAMADMGMFDRCREYFALNCIECGECAVVCPA |
|         | *****:*****                                                  |
| Mt RnfC | KKHLVQLIRYSKLQIMNQKNETVEATX                                  |
| Ma RnfC | KRHLVQLIRYSKLQIMNQKNETVEATE                                  |
|         | *:*****                                                      |
| Mt RnfD | MTSFTVSPPPHRRKKIKFIKLIWSRIFALLPISAAVYFFGFAALGNLIASILGAVGIEF  |
| Ma RnfD | MTSFTVSPPPHIKKIKFIKLIWSRIVALLPISAAVYFFGFAALGNIIASILGAVGIEF   |
|         | *****:*****                                                  |
| Mt RnfD | VIQKAFNKKLTILDGNAIYLGLLLALISPPTLPawMIFIGGAFavGVGKHafGGIGSYIF |
| Ma RnfD | VIQKAFNKKLTIMDGNAIYLGLLLALICPPTLPawMIFIGGAFavGVGKHafGGIGSYTF |
|         | *****:***** *                                                |
| Mt RnfD | HPSLAAWVFLSLAWAQDMLPGTIPILSSFSDLILENGAGFLTDVSPILVLLAGVILILVK |
| Ma RnfD | HPSLAAWVFLSLAWAQDMLPGTIPILSSFSDLILENGAGFLTDVSPILVLLAGVILILVK |
|         | *****                                                        |
| Mt RnfD | YIEWRIPLSYLLTTVILALALGDPLAYVVSgtFLLGVFFLATETVTSPVTRNGRIVYGIL |
| Ma RnfD | YIEWRIPLSYLLTTVILALVLGDPLAYVVSgtFLLGVFFIATETVTSPVTQNGRIVYGIL |
|         | *****:*****:*****:*****                                      |
| Mt RnfD | CGFLTvyGYfSGNYVWgtLYALLSNAVAPFIElKTLpkPMGGVADE               |
| Ma RnfD | CGFLTviGYfSGNYVWgtLYALLSNAVAPFIElKTLpkPMGGVANE               |
|         | *****:*****:                                                 |
| Mt RnfG | MSDSKEITKVIvTIVVISAVAAALLALTYTPTQAKLELLQAEQQKEAMKAILPQASDFEP |
| Ma RnfG | MSDSKEITKVIvTMVVISAVAAALLALTYTPTQAQLKLLQAEQQKEAMKEILPQAADFEP |
|         | *****:*****:*****:*****                                      |
| Mt RnfG | VTGSEVDDDGnPVVLYRGVDSSGNVVGyVVERNQVGAQGMiQLLAGISSDFGTITGFQV  |
| Ma RnfG | VTGSEVDDDGnPVVLYYKGVDSGNVVGyVVERNQVGAQGMiQLLAGISSDFSTITGFQV  |
|         | *****:*****                                                  |
| Mt RnfG | MKHSETPGLGALITTPEFQGGFVDLPVADTSLTKNGGQVDaISGATISSQAVVDALHSAV |
| Ma RnfG | MKHSETPGLGALITTPEFQGGFVDLPVADTSLTKNGGQVDaISGATISSQAVVDALHSAV |
|         | *****                                                        |

|         |                                                             |
|---------|-------------------------------------------------------------|
| Mt RnfG | DYVSAQEG                                                    |
| Ma RnfG | DYVSAQEG                                                    |
|         | *****                                                       |
| Mt RnfE | MYPHRRADMNPISFIRGITKDNPTFGLVLGLCPTLAVTTSVENGIGMAMGTLFVLVGSN |
| Ma RnfE | MYPHRRADMNPISFIRGITKDNPTFGLVLGLCPTLAVTTSVENGIGMAMGTLFVLVGSN |
|         | *****                                                       |
| Mt RnfE | MMVSAIRKGIPGTVRLPIEIIIVIAFVTIVDMVMEAFDPDLYASLGVFIPLIVNCIVIG |
| Ma RnfE | MMVSAIRKGIPGTVRLPVEIIVIAFVTIVDMVMEAFDPDLYTSLGVFIPLIVNCIVIG  |
|         | *****;*****;*****                                           |
| Mt RnfE | RAEAYALKNGVFYSIIDALGEGTGFLVLILIGGIRELLGTGIIDPFGMTLINLSGIITP |
| Ma RnfE | RAEAYALKNGVFYSIIDALGEGTGFLVLILIGGIRELLGTGIIDPFGMTLINLSGVINP |
|         | *****;.*                                                    |
| Mt RnfE | AMFMTMSPGAFLTIAVLMTIVNYRRQQKAAKGG                           |
| Ma RnfE | AMFMTMSPGAFLTIAVLMTIVNYRRQQKAAKGG                           |
|         | *****                                                       |
| Mt RnfA | VVKMAESLFTIFLEGVFIKNFLLIQFLGLCSFVGVTKDLKSASGMSGAVVFMAMAATVS |
| Ma RnfA | MVKMAESLFTIFLEGVFIKNFLLIQFLGLCSFVGVTKDLKSASGMSGAVVFMAMAATVS |
|         | ;*****                                                      |
| Mt RnfA | FALYNFILVPLKLEFLRTIAFIVVIAALVQLVEFIVRKHPALYRSLGIYLPLITTNCAV |
| Ma RnfA | FALYNFILVPLKLEFLRTIAFIVVIAALVQLVEFIVRKHPALYRSLGIYLPLITTNCAV |
|         | *****                                                       |
| Mt RnfA | LGAVLLNVMNDYNFAQSVVFGVAAGLGYTVAMLMAAIRERSDLVEVPKSVGRGVTYAFF |
| Ma RnfA | LGAVLLNVMNDYDLAQSVVFGVAAGLGYTVAMLMAAIRERSDLVEVPKSVGRGVTYAFF |
|         | *****;*****                                                 |
| Mt RnfA | IATIMSMSFVNFFGVIPLE                                         |
| Ma RnfA | IATIMSMSFVNFFGVIPLE                                         |
|         | *****                                                       |

Mt RnfB LSDVLINSIAVLAGLGFVGVMLVIASKVFKIDSNPLIDDVASLLPGANCGGCGFAGCAA

Ma RnfB MSSVLINSIAVLAGLGFVGVMLVIASKVFKIDSNPLIDDVASLLPGANCGGCGFAGCAA

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

Mt RnfB CAEAIVEQGAPINSCPVGGFVAKQIGALLGQEVTESEKAFPFVRCQGGQAHCTTLYDYH

Ma RnfB CAEAIVEQGAPVNSCPVGGFVAKQIGALLGQEVTESEKEFPFVRCQGGNQHCTTLYDYH

\*\*\*\*\*.\*\*\*\*\* \*\*\*\*\*.\*\*\*\*\*

Mt RnfB GVEGCKAALMLCDSKKGCTYGCIGLGTVCVRACQFDALSMGEDGFPVVNKNLCTSCGNCIA

Ma RnfB GVENCKVALMLCDSRKGCTYGCLGLGTVCVQACQFGALSMGEDGFPVVNKALCTSCGNCIA

\*\*\*.\*\*\*.\*\*\*\*\*.\*\*\*\*\*.\*\*\*\*\*.\*\*\*\*\*.\*\*\*\*\* \*\*\*\*\*

Mt RnfB ACPNGILT FARDSEK VHVLCRSHDKGKDV KAVCEVGCIGCKKCEKECPTGAIKVTNFLAE

Ma RnfB ACPNGVLT FARDSEK VHVLCRSHDKGKDV KAVCEVGCIGCKKCEKECPAGAIRVTEFLAE

\*\*\*\*\*.\*\*\*\*\*.\*\*\*\*\*.\*\*\*.\*\*\*.\*\*\*

Mt RnfB IDQEKCTACGACVAICPQKSIELR

Ma RnfB IDQEKCTACGACVAICPQKAIELR

\*\*\*\*\*.\*\*\*\*\*

Mt RnfX MPYKTFGLPENIVAALCYPVGWLSGLFFLLERKNKFVRFHAMQSVLLFMPYVLFRLFV

Ma RnfX MSYNTSLGLSENIVAALCYPVGWLSGLFFLLERKNKFVRFHAMQSVLLFMPIALFIFLV

\*.\*\*\*.\*\*\*.\*\*\*\*\* \*\*\*\*\*.\*\*\*.\*\*\*

Mt RnfX AWIPTIGWAIADSVGMPGMLLIVIPMYMAFRGSKFKIPIIGKIAYNFAYGE

Ma RnfX AWIPTIGWFIADGAGMTAMLLILIPMYMAFRGSKFKIPIIGNIAYNFAYGE

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