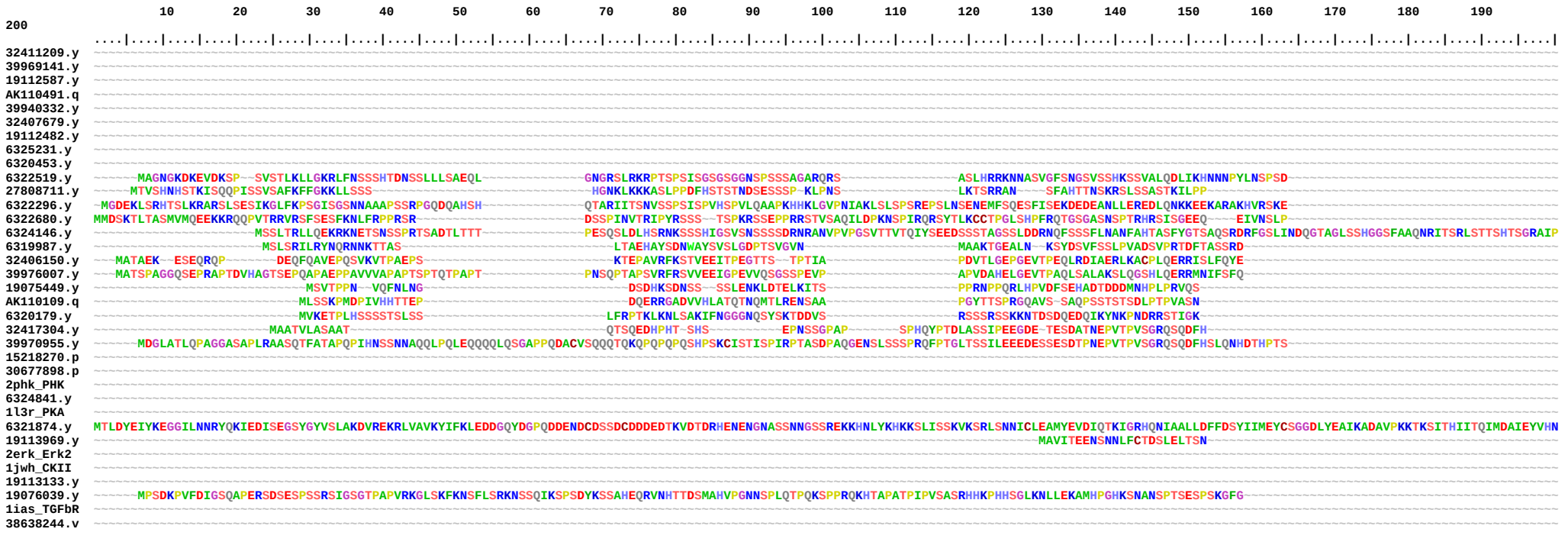
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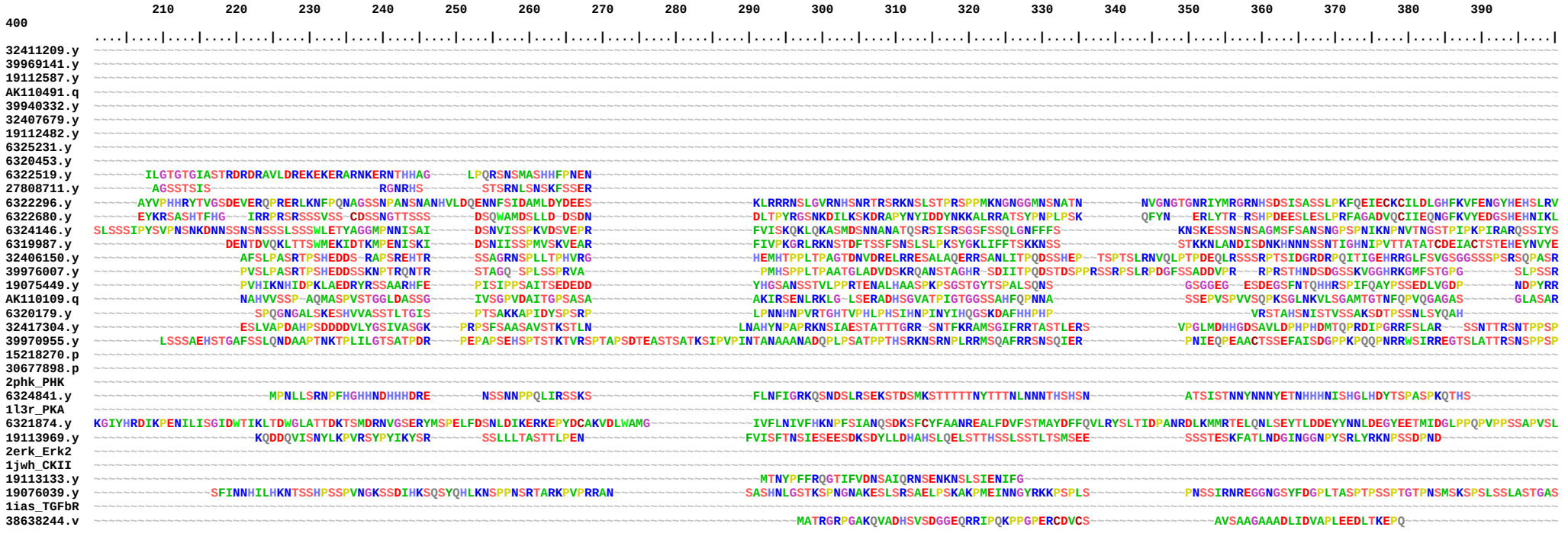
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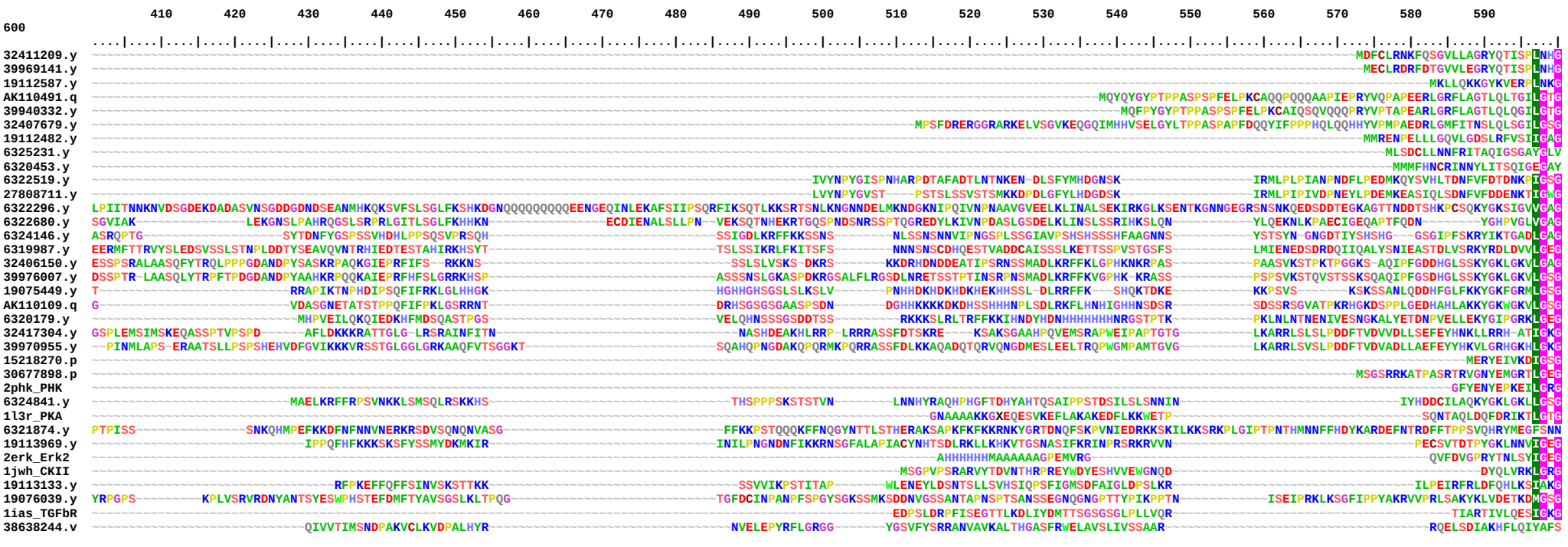
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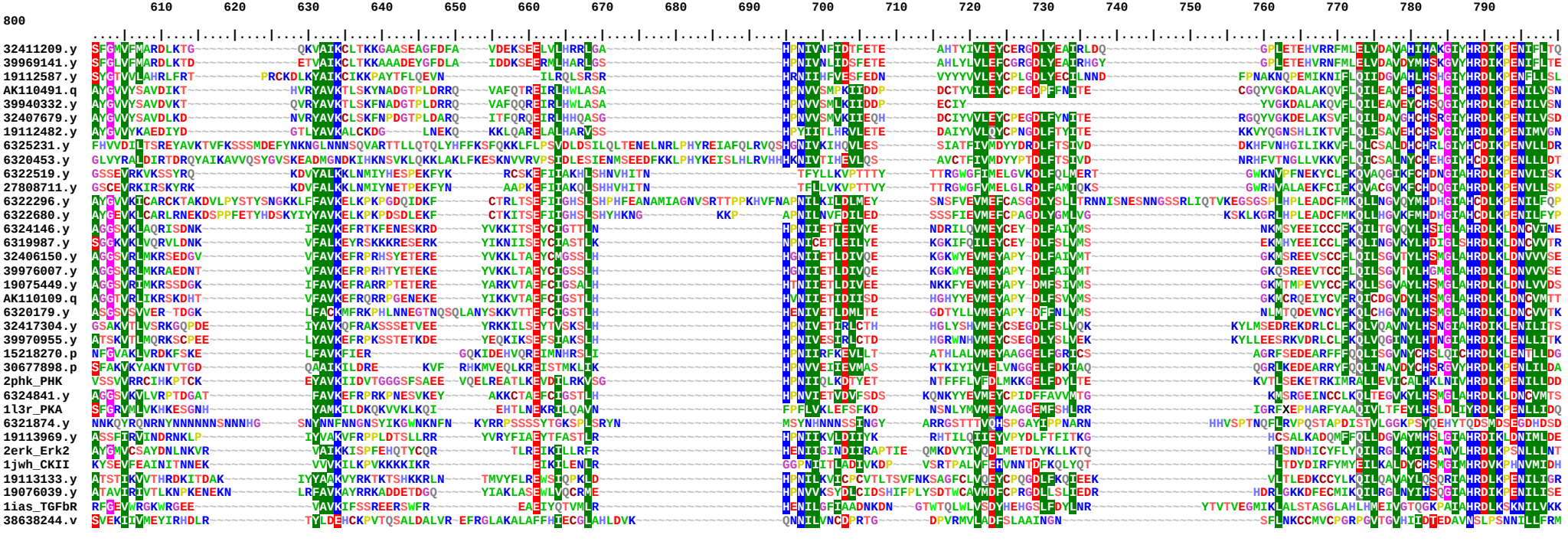
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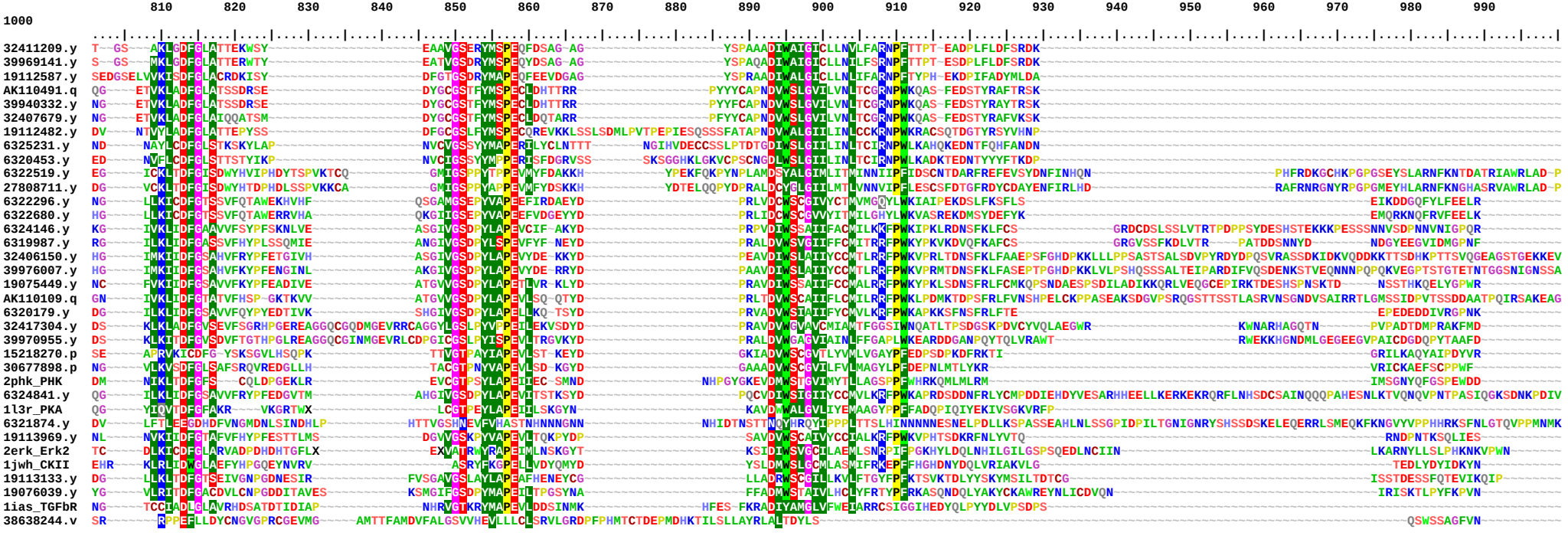
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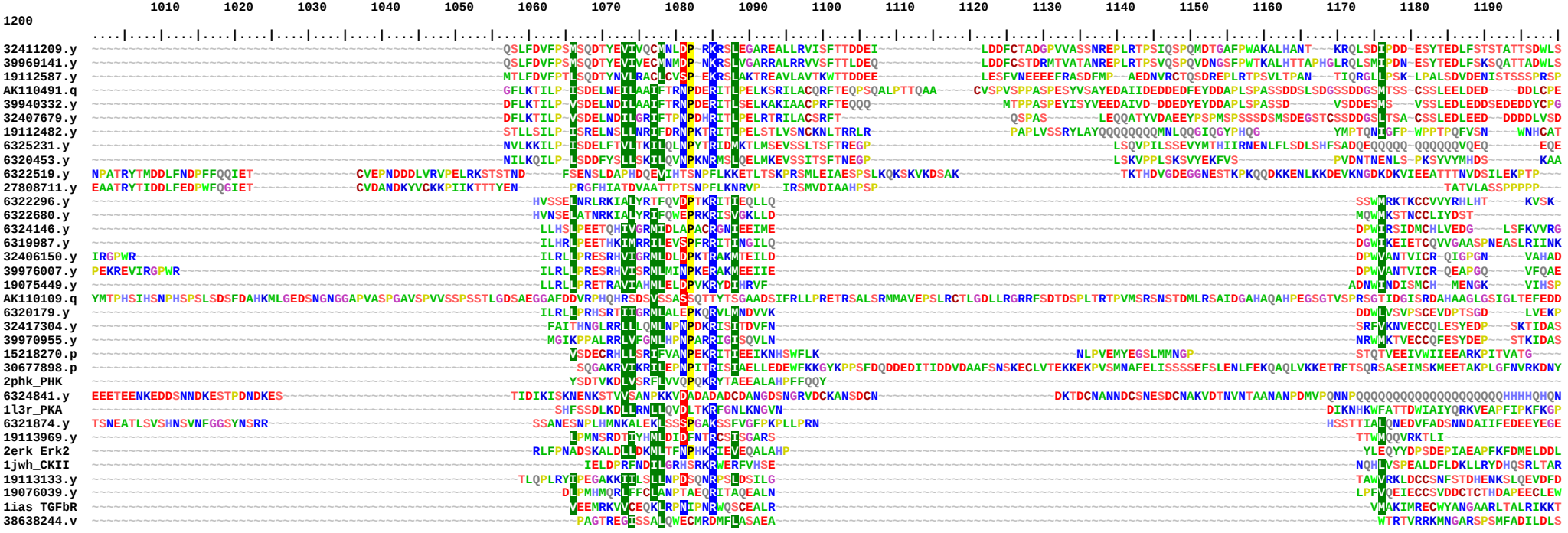
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39969141.y AHG--------------QTPSSLDSIINSSLGASINSMALD----RTQKFHSGANVSP--MAGSLP-INMSKPKVQSSISLAFGRKEGFSKSWSDMWEEDEEEEENERARLQNLQELNSRTWSHDSKIIEEDDEDTPRRGLSPVTKATPMCSAEKVPSIEHTIANSIDDDLIADGFFFQDTKVQSTPQKP----
19112587.y ASL--------------APVNNSERSYDSGLGESLNNMHIG----KSIATAVPVNTKRSPYSCSAPAIVFPNSIKGNKDHLKFGR------SWCDMDEEDE-----------------------------------EDIVSFGS-----------------------------NDDFGAS----------
AK110491.q PRG--------------AVTPPPQPEIN---TAIYDLET-QHQVMGYPSEYLHQQPCQPLSFANQLPQEQP-MPVQPHINMG-FQVPQPQHNFLPSK----------
39940332.y PRD--------------AVTPPPHPESG---AVIFDPESAVHGHAGMPSEYVPH--FQGHSTVPSMPIQVPSQPVQMNMPYG-HHMPK----------
32407679.y LPE--------------IKTPPPQQPLQGREPVIFEPLENPNVMTQYKHDYFQQ----PYPTTIPQPIQQPMMPIPVQPNYAPSKYPSGN----------
19112482.y PTI--------------PVSLQVLTPNS---SLKVDPTTPLTAPIHATESFWPSAAAAAAAVHNNANSYMPITPTPYPNNAKIFGYPNQP----------
6325231.y  QKQ--------------EQIQNQEQAQQQQEEEDAEPESDIPSTYNSDGSMEKYEYTNNHNNSTFLTSSMDSTPYQSDIDDV----------
6320453.y  KNL--------------SYTSSSEEEDGIKEGIDDDNGS------RSGSFG------TLDTDTGLHSSFTSTSCESDNECS----------
6322519.y  ------------------------------------------------------------TSTKVEDNLSEDDSTMKELKSMLNSTPTTPTHNGPTPLPAKAGTQ----------------------------------------LDKRMSDLSLKSETPASTKNF
27808711.y ------------------------------------------------------------PATHVPA-------------EALFTLRETPPPQ----------------------------------------------------LATLTLS-EEPPATPAP
6322296.y  ----------------------------------------------------------------------------------------------------------------------------------------------------------------
6322680.y  ----------------------------------------------------------------------------------------------------------------------------------------------------------------
6324146.y  EDHHHTQVDQSEAHIAGLEKKKKKQNNQ----------------------------------------------------------------------------------------------------------------------------------
6319987.y  GNHIHTNIDQRYAHIGGLHQRT----------------------------------------------------------------------------------------------------------------------------------------
32406150.y -DHVHTLEPPSAPAGTKDEKAKR----------------------------------------------------------------------------------------------------------------------------------------
39976007.y -DHTHILEPPAAPSSTPAAAPAK----------------------------------------------------------------------------------------------------------------------------------------
19075449.y -THVHNLVASEESPAPPAKH----------------------------------------------------------------------------------------------------------------------------------------
AK110109.q DDHGDDWLKGIRTCAHIVKDGKPGEQPDHPHVKVMSEDSKRKNSLFHRKD----------------------------------------------------------------------------------------------------
6320179.y  KNHKHHLVTEEELNELTKQHGNKDSN----------------------------------------------------------------------------------------------------------------------------------
32417304.y KKGCFGKGAPQKIFCHNHLPPKA---HHVAAVIGRT----------------------------------------------------------------------------------------------------------------------
39970955.y KKECFTN---KKIFCHNHLPPVASGNHSLGKMPGQAGY----------------------------------------------------------------------------------------------------------------------
15218270.p -LAGAGGSGGSSN-------------------------GAIGSSSMDLDDLDTDFDD--------IDTADLLSPL----------------------------------------------------------------------------------
30677898.p KIKMKGDKSGRKGQLSVATEVFEVAPSLHVVELRKTGGDTLEFHKFYKNFSSGLKDVVWNTDAAAEEQKQ----------------------------------------------------------------------------------
2phk_PHK   ----------------------------------------------------------------------------------------------------------------------------------------------------------------
6324841.y  QDKAHSIASDNKSSQQHRGPHHKKIIHGPYRLLRLLPHASRPIMSRILQVDPKKRATLDDIFNDEWFAAIAACTMDSKNKVIRAPGHHHTLVREENAHLETYKV----------
1l3r_PKA   GDTSNFDDYEEEEIRVXINEKCGKEFTEF----------------------------------------------------------------------------------------------------------------------------
6321874.y  SDKMAHGKMEGGDNESSSTSPDERQIFGPYEIYAQTFAGSTHDKKLGAGRKTSIQDEMVGSLEQYKNNWLILQQQD----------------------------------------------------------------------------
19113969.y ----------------------------------------------------------------------------------------------------------------------------------------------------------------
2erk_Erk2  PKEKLKELIFEETARFQPGYRS----------------------------------------------------------------------------------------------------------------------------------------
1jwh_CKII  EAMEHPYFYTVVKDQARMGSS----------------------------------------------------------------------------------------------------------------------------------------
19113133.y ASKPITRKSLIPRIHNHQTLV----------------------------------------------------------------------------------------------------------------------------------------
19076039.y ANPPVQKLSTPHNHL----------------------------------------------------------------------------------------------------------------------------------------------
1ias_TGFbR LSQLSQQEGIKM----------------------------------------------------------------------------------------------------------------------------------------------------
38638244.v ILLCHFDPDVRRTVSALA----------------------------------------------------------------------------------------------------------------------------------------------

                    1410      1420      1430      1440      1450      1460      1470      1480      1490      1500      1510      1520      1530      1540      1550      1560      1570      1580      1590
1600
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32411209.y ------------------------------------------------------TQFSMSHSPPARKSALD--KWQALGER------------------------------------------------------------------------RRATGTT--PPKGSESIPRTRQIP--------------HSFGAAS
39969141.y ------------------------------------------------KWQPESAPHHHSRYSPPTKRSPMDSDKWAVLGER------------------------------------------------------------------------RRAHSSTKKPDVGLKTIRNHQQTAPGFSTLGHEVWDHYNFGQHQ
19112587.y ------------------------------------------------------DELSSKHIGLAD-------DWNVLSQW------------------------------------------------------------------------NDNS
AK110491.q ------------------------------------------------------VAPQPPAPYLHQHHLPYILDVMYKFAHPG------------------------------------------------------------------------QHQAAQPVMHHPHPVPFNQP-QVPMFACY----------
39940332.y ------------------------------------------------------APVPVNPY-HMHHIPHLLDAMYKYQV------------------------------------------------------------------------QHPAPMPVMHHPHPVHFHQHHQVPMFACY----------
32407679.y ------------------------------------------------------LWETIKYYTHSHHAP--FHQMMVFVR------------------------------------------------------------------------IMIPRSPG----------
19112482.y ------------------------------------------------------PLTPIPFTGFVLHPAPVGRAADAVD------------------------------------------------------------------------PSRKSL----------
6325231.y  ------------------------------------------------------SASKDCKFQQDTLRNRLLCLQMNFST------------------------------------------------------------------------LTDGPNEKWLPDY----------
6320453.y  ------------------------------------------------------KISNKFSLFEKKFN----ELRMSSSS------------------------------------------------------------------------LTN----------
6322519.y  SAPNVSSSSNSLRSLGSPSVSSSKKKKVIHHHLDITNSVTNMSSVSAFISR----------------------------------------------------------------------------------------------------
27808711.y SAP--SAPSARVRGHSPHRVGASPSE----HCQQLGP----------------------------------------------------------------------------------------------------------------------
6322296.y  ----------------------------------------------------------------------------------------------------------------------------------------------------------------
6322680.y  ----------------------------------------------------------------------------------------------------------------------------------------------------------------
6324146.y  ----------------------------------------------------------------------------------------------------------------------------------------------------------------
6319987.y  ----------------------------------------------------------------------------------------------------------------------------------------------------------------
32406150.y ----------------------------------------------------------------------------------------------------------------------------------------------------------------
39976007.y ----------------------------------------------------------------------------------------------------------------------------------------------------------------
19075449.y ----------------------------------------------------------------------------------------------------------------------------------------------------------------
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32417304.y ----------------------------------------------------------------------------------------------------------------------------------------------------------------
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30677898.p ----------------------------------------------------------------------------------------------------------------------------------------------------------------
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39969141.y HNQSTPQKSTAHLQMSNMAFNHHAQHFGASKWNFGKDRAKECPMKKGMDS~~NWRRDRRTGFDVEWVGGW~~~~~~~~~~~~~~~~~~~~~~
19112587.y ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
AK110491.q ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
39940332.y ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
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39970955.y ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
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