

## Alignment of pbp2B sequence

pbp2b_32098	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
pbp2b_33329	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
pbp2b_37647	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
pbp2b_40085	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
pbp2b_40484	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
pbp2b_40747	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
pbp2b_41126	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
pbp2b_30190	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
pbp2b_P1/7	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
pbp2b_32494	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
pbp2b_22715	MKKRRKNKPLEHDGNFISLRNLILFSIVIFLFLVLILRLADMQIINHDFYSNKLSTASQKI	60
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pbp2b_32098	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRSNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
pbp2b_33329	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRSNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
pbp2b_37647	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRSNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
pbp2b_40085	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRSNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
pbp2b_40484	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRSNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
pbp2b_40747	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRSNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
pbp2b_41126	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRSNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
pbp2b_30190	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRPNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
pbp2b_P1/7	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRPNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
pbp2b_32494	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRPNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
pbp2b_22715	ISNGSIRGQIYDAQGKPLVENEIQQVVSFTRPNKMSAQEMKEVANKLLQWVNVSDVTITQ	120
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pbp2b_32098	RDKADYYLADEEVYRQVVEALPEDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDSK	180
pbp2b_33329	RDKADYYLADEEVYRQVVEALPEDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDSK	180
pbp2b_37647	RDKADYYLADEEVYRQVVEALPEDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDSK	180
pbp2b_40085	RDKADYYLADEEVYRQVVEALPEDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDSK	180
pbp2b_40484	RDKADYYLADEEVYRQVVEALPEDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDSK	180
pbp2b_40747	RDKADYYLADEEVYRQVVEALPEDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDSK	180
pbp2b_41126	RDKADYYLADEEVYRQVVEALPEDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDSK	180
pbp2b_30190	RDKADYYLADEEVYRQVVEALPKDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDNK	180
pbp2b_P1/7	RDKADYYLADEEVYRQVVEALPKDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDNK	180
pbp2b_32494	RDKADYYLADEEVYRQVVEALPKDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDNK	180
pbp2b_22715	RDKADYYLADEEVYRQVVEALPKDKKYDSGNYLSESTIYSNAVDSIPAEALQYSEQDNK	180
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pbp2b_32098	AIELFKQMNGATYFSTVNLVTDTLTAEQVAHIVANESQLPGISTTNNWQRN <del>I</del> LPTSLSSV	240
pbp2b_33329	AIELFKQMNGATYFSTVNLVTDTLTAEQVAHIVANESQLPGISTTNNWQRN <del>I</del> LPTSLSSV	240
pbp2b_37647	AIELFKQMNGATYFSTVNLVTDTLTAEQVAHIVANESQLPGISTTNNWQRT <del>I</del> LPTSLSSI	240
pbp2b_40085	AIELFKQMNGATYFSTVNLVTDTLTAEQVAHIVANESQLPGISTTNNWQRT <del>I</del> LPTSLSSI	240
pbp2b_40484	AIELFKQMNGATYFSTVNLVTDTLTAEQVAHIVANESQLPGISTTNNWQRT <del>I</del> LPTSLSSI	240
pbp2b_40747	AIELFKQMNGATYFSTVNLVTDTLTAEQVAHIVANESQLPGISTTNNWQRT <del>I</del> LPTSLSSI	240
pbp2b_41126	AIELFKQMNGATYFSTVNLVTDTLTAEQVAHIVANESQLPGISTTNNWQRT <del>I</del> LPTSLSSI	240
pbp2b_30190	AIELFKQMNGATYFSTVNLVTDTLTSEQVAHIVANESQLPGISTTNNWQRT <del>I</del> LPTSLSSI	240
pbp2b_P1/7	AIELFKQMNGATYFSTVNLVTDTLTSEQVAHIVANESQLPGISTTNNWQRT <del>I</del> LPTSLSSI	240
pbp2b_32494	AIELFKQMNGATYFSTVNLVTDTLTSEQVAHIVANESQLPGISTTNNWQRT <del>I</del> LPTSLSSI	240
pbp2b_22715	AIELFKQMNGATYFSTVNLVTDTLTSEQVAHIVANESQLPGISTTNNWQRT <del>I</del> LPTSLSSI	240
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pbp2b_32098	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>E</del> INLDRNGNV	300
pbp2b_33329	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>E</del> INLDRNGNV	300
pbp2b_37647	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>Q</del> INLDRNGNV	300
pbp2b_40085	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>Q</del> INLDRNGNV	300
pbp2b_40484	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>Q</del> INLDRNGNV	300
pbp2b_40747	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>Q</del> INLDRNGNV	300
pbp2b_41126	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>Q</del> INLDRNGNV	300
pbp2b_30190	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>Q</del> INLDRNGNI	300
pbp2b_P1/7	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>Q</del> INLDRNGNI	300
pbp2b_32494	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>Q</del> INLDRNGNI	300
pbp2b_22715	IGTVTSEQAGLPAEDAEEYLSKGYSPNDRVGTAYLEKQYEEVLQGQREKK <del>Q</del> INLDRNGNI	300
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pbp2b_32098	ESIKTIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELSTGSALYSEGVYAVALNPSTG	360
pbp2b_33329	ESIKTIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELSTGSALYSEGVYAVALNPSTG	360
pbp2b_37647	ESIETIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELATGSALYSEGVYAVALNPSTG	360
pbp2b_40085	ESIETIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELATGSALYSEGVYAVALNPSTG	360
pbp2b_40484	ESIETIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELATGSALYSEGVYAVALNPSTG	360
pbp2b_40747	ESIETIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELATGSALYSEGVYAVALNPSTG	360
pbp2b_41126	ESIETIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELATGSALYSEGVYAVALNPSTG	360
pbp2b_30190	ESIETIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELATGSALYSEGVYAVALNPSTG	360
pbp2b_P1/7	ESIETIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELATGSALYSEGVYAVALNPSTG	360
pbp2b_32494	ESIETIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELATGSALYSEGVYAVALNPSTG	360
pbp2b_22715	ESIETIQEGQQGNNIKLTIDLAFQDGVNAILKKYFESELATGSALYSEGVYAVALNPSTG	360

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pbp2b_32098	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVLLDEPI	420
pbp2b_33329	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVLLDEPI	420
pbp2b_37647	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVQLDEPI	420
pbp2b_40085	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVQLDEPI	420
pbp2b_40484	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVQLDEPI	420
pbp2b_40747	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVQLDEPI	420
pbp2b_41126	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVQLDEPI	420
pbp2b_30190	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVQLDEPI	420
pbp2b_P1/7	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVQLDEPI	420
pbp2b_32494	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVQLDEPI	420
pbp2b_22715	AVLAMSGYSHEKGSSTITEDALGTITSVFTPGSIVKGATISSGWENGISGNQVQLDEPI	420

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pbp2b_32098	YFAGSAPITSWW--AYGSFNIDATEALEYSSNVYMKIALGLLGQTYSANMYLNDGDTLT	478
pbp2b_33329	YFAGSAPITSWW--AYGSFNIDATEALEYSSNVYMKIALGLLGQTYSANMYLNDGDTLT	478
pbp2b_37647	YFAGSAPITSWW--AYGSFNIDATEALEYSSNAVYMKIALGLLGQTYSANMYLNDGDTLT	478
pbp2b_40085	YFAGSAPITSWW--AYGSFNIDATEALEYSSNAVYMKIALGLLGQTYSANMYLNDGDTLT	478
pbp2b_40484	YFAGSAPITSWW--AYGSFNIDATEALEYSSNAVYMKIALGLLGQTYSANMYLNDGDTLT	478
pbp2b_40747	YFAGSAPITSWW--AYGSFNIDATEALEYSSNAVYMKIALGLLGQTYSANMYLNDGDTLT	478
pbp2b_41126	YFAGSAPITSWW--AYGSFNIDATEALEYSSNAVYMKIALGLLGQTYSANMYLNDGDTLT	478
pbp2b_30190	YFAGSAPITSWYGAYGSFNIDATEALEYSSNIYMKIALGLLGQTYSANMYLNDGDTLTK	480
pbp2b_P1/7	YFAGSAPITSWYG--AYGSFNIDATEALEYSSNIYMKIALGLLGQTYSANMYLNDGDTLTK	479
pbp2b_32494	YFAGSAPITSWYG--AYGSFNIDATEALEYSSNIYMKIALGLLGQTYSANMYLNDGDTLTK	479
pbp2b_22715	YFAGSAPITSWYG--AYGSFNIDATEALEYSSNIYMKIALGLLGQTYSANMYLNDGDTLTK	479

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pbp2b_32098	NAMTKLRSTFAEYGLGASTGIDLPLESTGFLPPEEYSTANFIMNAFGQFDNYTPMQMAQYV	538
pbp2b_33329	NAMTKLRSTFAEYGLGASTGIDLPLESTGFLPPEEYSTANFIMNAFGQFDNYTPMQMAQYV	538
pbp2b_37647	NAMTKLRSTFAEYGLGASTGIDLPLESIGFLPPEEYSTANFITNAFGQFDNYTPMQMAQYA	538
pbp2b_40085	NAMTKLRSTFAEYGLGASTGIDLPLESIGFLPPEEYSTANFITNAFGQFDNYTPMQMAQYA	538
pbp2b_40484	NAMTKLRSTFAEYGLGASTGIDLPLESIGFLPPEEYSTANFITNAFGQFDNYTPMQMAQYA	538
pbp2b_40747	NAMTKLRSTFAEYGLGASTGIDLPLESIGFLPPEEYSTANFITNAFGQFDNYTPMQMAQYA	538
pbp2b_41126	NAMTKLRSTFAEYGLGASTGIDLPLESIGFLPPEEYSTANFITNAFGQFDNYTPMQMAQYA	538
pbp2b_30190	NAMTKLRSTFAEYGLGASTGIDLPLESTGFLPDKYTTANFITNAFGQFDNYTPMQMAQYA	540
pbp2b_P1/7	NAMTKLRSTFAEYGLGASTGIDLPLESTGFLPDKYTTANFITNAFGQFDNYTPMQMAQYA	539
pbp2b_32494	NAMTKLRSTFAEYGLGASTGIDLPLESTGFLPDKYTTANFITNAFGQFDNYTPMQMAQYA	539
pbp2b_22715	NAMTKLRSTFAEYGLGASTGIDLPLESTGFLPDKYTTANFITNAFGQFDNYTPMQMAQYA	539

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pbp2b_32098	ATVANNGKRISPHLVEGIYGNNPQGGGLDLIETVSGKEMNQVNISADEMALLRQGFYQLV	598
pbp2b_33329	ATVANNGKRISPHLVEGIYGNNPQGGGLDLIETVSGKEMNQVNISADEMALLRQGFYQLV	598
pbp2b_37647	ATIANNGTRISPHLVEGIYGNNAQGGGLGELIETVSGKEMNQVNISAEEMSLLRQGFYQVV	598
pbp2b_40085	ATIANNGTRISPHLVEGIYGNNAQGGGLGELIETVSGKEMNQVNISAEEMSLLRQGFYQVV	598
pbp2b_40484	ATIANNGTRISPHLVEGIYGNNAQGGGLGELIETVSGKEMNQVNISAEEMSLLRQGFYQVV	598
pbp2b_40747	ATIANNGTRISPHLVEGIYGNNAQGGGLGELIETVSGKEMNQVNISAEEMSLLRQGFYQVV	598
pbp2b_41126	ATIANNGTRISPHLVEGIYGNNAQGGGLGELIETVSGKEMNQVNISAEEMSLLRQGFYQVV	598
pbp2b_30190	ATIANNGTRISPHLVEGIYGNNAQGGGLGELIETVSGKEMNQVNISAEEDMSLLRQGFYQVV	600
pbp2b_P1/7	ATIANNGTRISPHLVEGIYGNNAQGGGLGELIETVSGKEMNQVNISAEEDMSLLRQGFYQVV	599
pbp2b_32494	ATIANNGTRISPHLVEGIYGNNAQGGGLGELIETVSGKEMNQVNISAEEDMSLLRQGFYQVV	599
pbp2b_22715	ATIANNGTRISPHLVEGIYGNNAQGGGLGELIETVSGKEMNQVNISAEEDMSLLRQGFYQVV	599

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pbp2b_32098	NGGGRFNTGSAIGRGAAVTISAKTGTAEYTTTTPSGEVVTAVNTNVVAYAPSDNPQIAVA	658
pbp2b_33329	NGGGRFNTGSAIGRGAAVTISAKTGTAEYTTTTPSGEVVTAVNTNVVAYAPSDNPQIAVA	658
pbp2b_37647	NGSGRFNTGSAIGRGAAVTISAKTGRAETYTTTTASGDVVTAVNTNVVAYAPSDNPQIAVA	658
pbp2b_40085	NGSGRFNTGSAIGRGAAVTISAKTGRAETYTTTTASGDVVTAVNTNVVAYAPSDNPQIAVA	658
pbp2b_40484	NGSGRFNTGSAIGRGAAVTISAKTGRAETYTTTTASGDVVTAVNTNVVAYAPSDNPQIAVA	658
pbp2b_40747	NGSGRFNTGSAIGRGAAVTISAKTGRAETYTTTTASGDVVTAVNTNVVAYAPSDNPQIAVA	658
pbp2b_41126	NGSGRFNTGSAIGRGAAVTISAKTGRAETYTTTTASGDVVTAVNTNVVAYAPSDNPQIAVA	658
pbp2b_30190	NGSGRFNTGSAIGRGAAVTISAKTGTAEYTTTTASGDMVTAINTNVVAYAPSDNPQIAVA	660
pbp2b_P1/7	NGSGRFNTGSAIGRGAAVTISAKTGTAEYTTTTASGDVVTAVNTNVVAYAPSDNPQIAVA	659
pbp2b_32494	NGSGRFNTGSAIGRGAAVTISAKTGTAEYTTTTASGDVVTAVNTNVVAYAPSDNPQIAVA	659
pbp2b_22715	NGSGRFNTGSAIGRGAAVTISAKTGTAEYTTTTASGDVVTAINTNVVAYAPSDNPQIAVV	659

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pbp2b_32098	VVLPNLTNENST-TKAITTEIINLYNSLYPMN	689
pbp2b_33329	VVLPNLTNENST-TKAITTEIINLYNSLYPMN	689
pbp2b_37647	VVLPNLTNQSSTTTNTITQEIINLYQSLHPMN	690
pbp2b_40085	VVLPNLTNQSSTTTNTITQEIINLYQSLHPMN	690
pbp2b_40484	VVLPNLTNQSSTTTNTITQEIINLYQSLHPMN	690
pbp2b_40747	VVLPNLTNQSSTTTNTITQEIINLYQSLHPMN	690
pbp2b_41126	VVLPNLTNQSSTTTNTITQEIINLYQSLHPMN	690
pbp2b_30190	VVLPNLTNQSSTTTKTITQEIINLYQSLHPMN	692
pbp2b_P1/7	VVLPNLTNQSSTTTKTITQEIINLYQSLHPMN	691
pbp2b_32494	VVLPNLTNQSSTTTKTITQEIINLYQSLHPMN	691
pbp2b_22715	VVLPNLTNQSSTTTKTITQEIINLYQSLHPMN	691

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