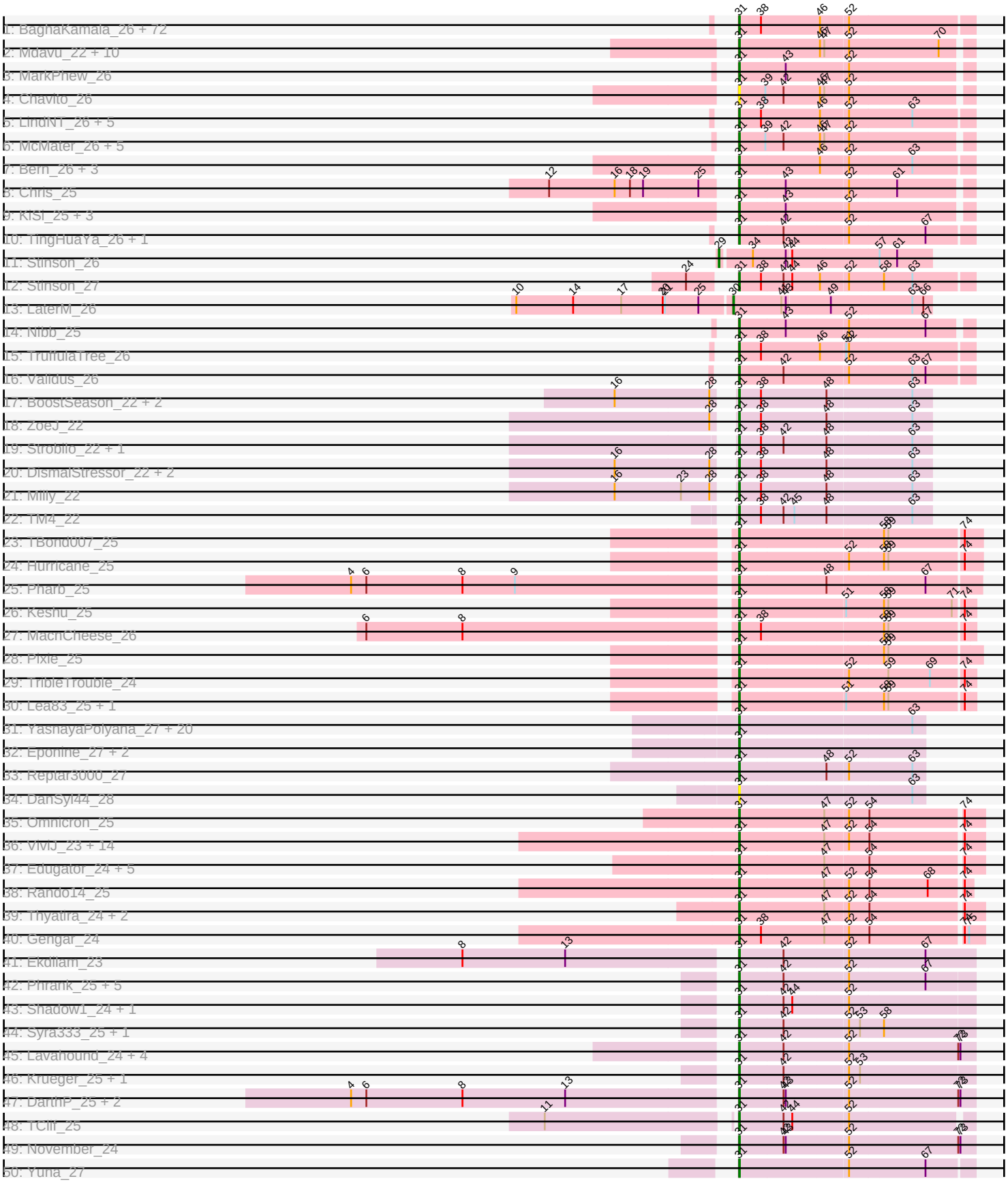
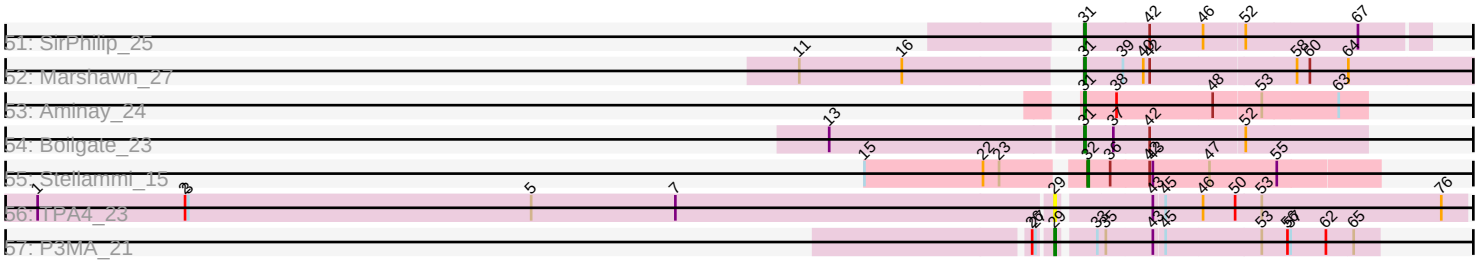
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1: BaghaKamala_26 + 72
2: Mdavu_22 + 10
3: MarkPhew_26
4: Chavito_26
5: LindNT_26 + 5
6: McMater_26 + 5
7: Bern_26 + 3
8: Chris_25
9: KISI_25 + 3
10: TingHuaYa_26 + 1
11: Stinson_26
12: Stinson_27
13: LaterM_26
14: Nibb_25
15: TruffulaTree_26
16: Validus_26
17: BoostSeason_22 + 2
18: ZoeJ_22
19: Strobilo_22 + 1
20: DismalStressor_22 + 2
21: Milly_22
22: TM4_22
23: TBond007_25
24: Hurricane_25
25: Pharb_25
26: Keshu_25
27: MachCheese_26
28: Pixie_25
29: TribleTrouble_24
30: Lea83_25 + 1
31: YashayaPolyana_27 + 20
32: Eponine_27 + 2
33: Reptar3000_27
34: DanSyl44_28
35: Omnicron_25
36: VMJ_23 + 14
37: Edugator_24 + 5
38: Rando14_25
39: Thyatira_24 + 2
40: Gengar_24
41: Ekuliam_23
42: Phrank_25 + 5
43: Shadow1_24 + 1
44: Syra333_25 + 1
45: Lavahound_24 + 4
46: Krueger_25 + 1
47: DarthP_25 + 2
48: TCliff_25
49: November_24
50: Yuna_27

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51: SirPhilip_25
52: Marshawn_27
53: Aminay_24
54: Boilgate_23
55: Stellammi_15
56: TPA4_23
57: P3MA_21

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 343637 Report

This analysis was run 11/14/26 on database version 672.

Pham number 343637 has 219 members, 16 are drafts.

Phages represented in each track:
• Track 1 : BaghaKamala_26, Durfee_26, Apocalypse_26, BarrelRoll_26, Efra2_26, Piatt_26, Slimphazie_26, Murucutumbu_26, Boiiii_26, Pokerus_25, YoureAdopted_25, Joy99_26, Dole_26, Belladonna_26, Peel_26, CheetoDust_26, Adonis_26, Emerson_26, Padfoot_26, MeaningOfLife_26, Angelica_26, Zavala_26, Topper_26, HedwigODU_26, Jayhawk_26, Dalmuri_26, Mynx_26, Asayake_26, Inky_26, JAWS_26, Illumine_26, Guanica15_26, Capricorn_26, Jeckyll_26, BGlluviae_26, Lunahalos_26, Curiosium_27, CREW_26, Geraldini_26, Beezoo_26, MacKat_26, BEEST_26, CallaLilly_26, ActinUp_26, Veliki_26, CrimD_26, AlishaPH_26, Padpat_26, Yunkel11_26, Rosmarinus_26, Devera_26, Zabiza_26, Blizzard_26, Atiba_26, Deby_26, Lokum_26, CaseJules_26, ShiaSurprise_26, Ramen_26, Rapunzel97_26, Hyperbowlee_26, Homura_26, Ganymede_27, Jarvi_26, Adephagia_26, Tachez_26, Clipper_26, Spock_26, Tiri_26, QuincyRose_25, Twitch_26, Sulley_26, Llorens_26
• Track 2 : Mdavu_22, Teejan_22, Trice_22, Enkosi_22, Biglebops_22, Amelie_22, Nikao_22, Nutello_22, SgtBeansprout_22, LilPharaoh_22, Torres_22
• Track 3 : MarkPhew_26
• Track 4 : Chavito_26
• Track 5 : LindNT_26, Anaya_27, TreyKay_26, TaiwanKao_27, Prithvi_26, Megsy_26
• Track 6 : McMater_26, Peanam_26, Shaobing_26, Niklas_26, Dartin_26, Richo_26
• Track 7 : Bern_26, Pisa4_25, Kheparia_28, Pisa1_25
• Track 8 : Chris_25
• Track 9 : KiSi_25, LeMond_25, Oscar_25, Scarlett_25
• Track 10 : TingHuaYa_26, LastHope_26
• Track 11 : Stinson_26
• Track 12 : Stinson_27
• Track 13 : LaterM_26
• Track 14 : Nibb_25
• Track 15 : TruffulaTree_26
• Track 16 : Validus_26
• Track 17 : BoostSeason_22, Doughnut_22, Mufasa_22
• Track 18 : ZoeJ_22
• Track 19 : Strobilo_22, Findley_22
• Track 20 : DismalStressor_22, DismalFunk_22, Marcoliusprime_22
• Track 21 : Milly_22
• Track 22 : TM4_22
• Track 23 : TBond007_25
• Track 24 : Hurricane_25

• Track 25 : Pharb_25
• Track 26 : Keshu_25
• Track 27 : MacnCheese_26
• Track 28 : Pixie_25
• Track 29 : TribleTrouble_24
• Track 30 : Lea83_25, ShedlockHolmes_25
• Track 31 : YasnayaPolyana_27, Cheetobro_27, MissDaisy_27, Wintermute_27, Bobquesha_28, Patt_27, Mitti_27, Fionnbharth_27, OmniCritical_27, SamScheppers_25, Chancellor_27, Nolwazi_28, Lebo14_27, Kraw_27, JF1_27, Slarp_27, Y2_27, Malthus_28, Taquito_25, Y10_27, Qhanda_28
• Track 32 : Eponine_27, Juliette_27, Ruthiejr_26
• Track 33 : Reptar3000_27
• Track 34 : DanSyl44_28
• Track 35 : Omnicron_25
• Track 36 : ViviJ_23, SoSeph_24, Leston_24, LilDirt_23, Heftyboy_24, Guillsminger_24, Collard_24, BananenDer11_24, OkiRoe_24, Kratio_23, InvictusManeo_24, DoubleChamp_24, Agent47_24, Feyre_24, Paola_24
• Track 37 : Edugator_24, Neighly_25, Larva_25, Dadosky_25, Psycho_25, AlleyCat_25
• Track 38 : Rando14_25
• Track 39 : Thyatira_24, Waterfoul_24, Miryou_24
• Track 40 : Gengar_24
• Track 41 : Ekdilam_23
• Track 42 : Phrank_25, Bryler_25, Tierra_25, PhelpsODU_25, Cain_25, Unicorn_25
• Track 43 : Shadow1_24, Sunflower1121_24
• Track 44 : Syra333_25, Ximenita_26
• Track 45 : Lavahound_24, Amgine_24, Ellie_23, Fefferhead_25, Applecrisp_24
• Track 46 : Krueger_25, Tigress9_25
• Track 47 : DarthP_25, Hammy_25, Amohnition_25
• Track 48 : TClif_25
• Track 49 : November_24
• Track 50 : Yuna_27
• Track 51 : SirPhilip_25
• Track 52 : Marshawn_27
• Track 53 : Aminay_24
• Track 54 : Boilgate_23
• Track 55 : Stellammi_15
• Track 56 : TPA4_23
• Track 57 : P3MA_21

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 31, it was called in 199 of the 203 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ActinUp_26, Adephagia_26, Adonis_26, Agent47_24, AlishaPH_26, AlleyCat_25, Amelie_22, Amgine_24, Aminay_24, Amohnition_25, Anaya_27, Angelica_26, Apocalypse_26, Applecrisp_24, Asayake_26, Atiba_26, BEEST_26, BGlluviae_26, BaghaKamala_26, BananenDer11_24, BarrelRoll_26, Beezoo_26, Belladonna_26,

Bern_26, Biglebops_22, Blizzard_26, Bobquesha_28, Boiiii_26, Boilgate_23, BoostSeason_22, Bryler_25, CREW_26, Cain_25, CallaLilly_26, Capricorn_26, CaseJules_26, Chancellor_27, Chavito_26, CheetoDust_26, Cheetobro_27, Chris_25, Clipper_26, Collard_24, CrimD_26, Curiosium_27, Dadosky_25, Dalmuri_26, DanSyl44_28, DarthP_25, Dartin_26, Deby_26, Devera_26, DismalFunk_22, DismalStressor_22, Dole_26, DoubleChamp_24, Doughnut_22, Durfee_26, Edugator_24, Efra2_26, Ekdilam_23, Ellie_23, Emerson_26, Enkosi_22, Eponine_27, Fefferhead_25, Feyre_24, Findley_22, Fionnbharth_27, Ganymede_27, Gengar_24, Geraldini_26, Guanica15_26, Guillsminger_24, Hammy_25, HedwigODU_26, Heftyboy_24, Homura_26, Hurricane_25, Hyperbowlee_26, Illumine_26, Inky_26, InvictusManeo_24, JAWS_26, JF1_27, Jarvi_26, Jayhawk_26, Jeckyll_26, Joy99_26, Juliette_27, Keshu_25, Kheparia_28, KiSi_25, Kratio_23, Kraw_27, Krueger_25, Larva_25, LastHope_26, Lavahound_24, LeMond_25, Lea83_25, Lebo14_27, Leston_24, LilDirt_23, LilPharaoh_22, LindNT_26, Llorens_26, Lokum_26, Lunahalos_26, MacKat_26, MacnCheese_26, Malthus_28, Marcoliusprime_22, MarkPhew_26, Marshawn_27, McMater_26, Mdavu_22, MeaningOfLife_26, Megsy_26, Milly_22, Miryou_24, MissDaisy_27, Mitti_27, Mufasa_22, Murucutumbu_26, Mynx_26, Neighly_25, Nibb_25, Nikao_22, Niklas_26, Nolwazi_28, November_24, Nutello_22, OkiRoe_24, OmniCritical_27, Omnicron_25, Oscar_25, Padfoot_26, Padpat_26, Paola_24, Patt_27, Peanam_26, Peel_26, Pharb_25, PhelpsODU_25, Phrank_25, Piatt_26, Pisa1_25, Pisa4_25, Pixie_25, Pokerus_25, Prithvi_26, Psycho_25, Qhanda_28, QuincyRose_25, Ramen_26, Rando14_25, Rapunzel97_26, Reptar3000_27, Richo_26, Rosmarinus_26, Ruthiejr_26, SamScheppers_25, Scarlett_25, SgtBeansprout_22, Shadow1_24, Shaobing_26, ShedlockHolmes_25, ShiaSurprise_26, SirPhilip_25, Slarp_27, Slimphazie_26, SoSeph_24, Spock_26, Stinson_27, Strobilo_22, Sulley_26, Sunflower1121_24, Syra333_25, TBond007_25, TClif_25, TM4_22, Tachez_26, TaiwanKao_27, Taquito_25, Teejan_22, Thyatira_24, Tierra_25, Tigress9_25, TingHuaYa_26, Tiri_26, Topper_26, Torres_22, TreyKay_26, TribleTrouble_24, Trice_22, TruffulaTree_26, Twitch_26, Unicorn_25, Validus_26, Veliki_26, ViviJ_23, Waterfoul_24, Wintermute_27, Ximenita_26, Y10_27, Y2_27, YasnayaPolyana_27, YoureAdopted_25, Yuna_27, Yunkel11_26, Zabiza_26, Zavala_26, ZoeJ_22,

Genes that have the "Most Annotated" start but do not call it:
•

Genes that do not have the "Most Annotated" start:
• LaterM_26, P3MA_21, Stellammi_15, Stinson_26, TPA4_23,

Summary by start number:

Start 29:
• Found in 3 of 219 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 203
• Called 100.0% of time when present
• Phage (with cluster) where this start called: P3MA_21 (singleton), Stinson_26 (K1), TPA4_23 (singleton),

Start 30:
• Found in 1 of 219 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 203
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LaterM_26 (K1),

Start 31:
• Found in 214 of 219 (97.7%) of genes in pham
• Manual Annotations of this start: 199 of 203
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ActinUp_26 (K1), Adephagia_26 (K1), Adonis_26 (K1), Agent47_24 (K5), AlishaPH_26 (K1), AlleyCat_25 (K5), Amelie_22 (K1), Amgine_24 (K6), Aminay_24 (K7), Amohnition_25 (K6), Anaya_27 (K1), Angelica_26 (K1), Apocalypse_26 (K1), Applecrisp_24 (K6), Asayake_26 (K1), Atiba_26 (K1), BEEST_26 (K1), BGlluviae_26 (K1), BaghaKamala_26 (K1), BananenDer11_24 (K5), BarrelRoll_26 (K1), Beezoo_26 (K1), Belladonna_26 (K1), Bern_26 (K1), Biglebops_22 (K1), Blizzard_26 (K1), Bobquesha_28 (K4), Boiiii_26 (K1), Boilgate_23 (K8), BoostSeason_22 (K2), Bryler_25 (K6), CREW_26 (K1), Cain_25 (K6), CallaLilly_26 (K1), Capricorn_26 (K1), CaseJules_26 (K1), Chancellor_27 (K4), Chavito_26 (K1), CheetoDust_26 (K1), Cheetobro_27 (K4), Chris_25 (K1), Clipper_26 (K1), Collard_24 (K5), CrimD_26 (K1), Curiosium_27 (K1), Dadosky_25 (K5), Dalmuri_26 (K1), DanSyl44_28 (K4), DarthP_25 (K6), Dartin_26 (K1), Deby_26 (K1), Devera_26 (K1), DismalFunk_22 (K2), DismalStressor_22 (K2), Dole_26 (K1), DoubleChamp_24 (K5), Doughnut_22 (K2), Durfee_26 (K1), Edugator_24 (K5), Efra2_26 (K1), Ekdilam_23 (K6), Ellie_23 (K6), Emerson_26 (K1), Enkosi_22 (K1), Eponine_27 (K4), Fefferhead_25 (K6), Feyre_24 (K5), Findley_22 (K2), Fionnbharth_27 (K4), Ganymede_27 (K1), Gengar_24 (K5), Geraldini_26 (K1), Guanica15_26 (K1), Guillsminger_24 (K5), Hammy_25 (K6), HedwigODU_26 (K1), Heftyboy_24 (K5), Homura_26 (K1), Hurricane_25 (K3), Hyperbowlee_26 (K1), Illumine_26 (K1), Inky_26 (K1), InvictusManeo_24 (K5), JAWS_26 (K1), JF1_27 (K4), Jarvi_26 (K1), Jayhawk_26 (K1), Jeckyll_26 (K1), Joy99_26 (K1), Juliette_27 (K4), Keshu_25 (K3), Kheparia_28 (K1), KiSi_25 (K1), Kratio_23 (K5), Kraw_27 (K4), Krueger_25 (K6), Larva_25 (K5), LastHope_26 (K1), Lavahound_24 (K6), LeMond_25 (K1), Lea83_25 (K3), Lebo14_27 (K4), Leston_24 (K5), LilDirt_23 (K5), LilPharaoh_22 (K1), LindNT_26 (K1), Llorens_26 (K1), Lokum_26 (K1), Lunahalos_26 (K1), MacKat_26 (K1), MacnCheese_26 (K3), Malthus_28 (K4), Marcoliusprime_22 (K2), MarkPhew_26 (K1), Marshawn_27 (K6), McMater_26 (K1), Mdavu_22 (K1), MeaningOfLife_26 (K1), Megsy_26 (K1), Milly_22 (K2), Miryou_24 (K5), MissDaisy_27 (K4), Mitti_27 (K4), Mufasa_22 (K2), Murucutumbu_26 (K1), Mynx_26 (K1), Neighly_25 (K3), Nibb_25 (K1), Nikao_22 (K1), Niklas_26 (K1), Nolwazi_28 (K4), November_24 (K6), Nutello_22 (K1), OkiRoe_24 (K5), OmniCritical_27 (K4), Omnicron_25 (K5), Oscar_25 (K1), Padfoot_26 (K1), Padpat_26 (K1), Paola_24 (K5), Patt_27 (K4), Peanam_26 (K1), Peel_26 (K1), Pharb_25 (K3), PhelpsODU_25 (K6), Phrank_25 (K6), Piatt_26 (K1), Pisa1_25 (K1), Pisa4_25 (K1), Pixie_25 (K3), Pokerus_25 (K1), Prithvi_26 (K1), Psycho_25 (K5), Qhanda_28 (K4), QuincyRose_25 (K1), Ramen_26 (K1), Rando14_25 (K5), Rapunzel97_26 (K1), Reptar3000_27 (K4), Richo_26 (K1), Rosmarinus_26 (K1), Ruthiejr_26 (K4), SamScheppers_25 (K4), Scarlett_25 (K1), SgtBeansprout_22 (K1), Shadow1_24 (K6), Shaobing_26 (K1), ShedlockHolmes_25 (K3), ShiaSurprise_26 (K1), SirPhilip_25 (K6), Slarp_27 (K4), Slimphazie_26 (K1), SoSeph_24 (K5), Spock_26 (K1), Stinson_27 (K1), Strobilo_22 (K2), Sulley_26 (K1), Sunflower1121_24 (K6), Syra333_25 (K6), TBond007_25 (K3), TClif_25 (K6), TM4_22 (K2), Tachez_26 (K1), TaiwanKao_27 (K1), Taquito_25 (K4), Teejan_22 (K1), Thyatira_24 (K5), Tierra_25 (K6), Tigress9_25 (K6), TingHuaYa_26 (K1), Tiri_26 (K1), Topper_26 (K1), Torres_22 (K1), TreyKay_26 (K1), TribleTrouble_24 (K3), Trice_22 (K1), TruffulaTree_26 (K1), Twitch_26 (K1), Unicorn_25 (K6), Validus_26 (K1), Veliki_26 (K1), ViviJ_23 (K5), Waterfoul_24 (K5), Wintermute_27 (K4), Ximenita_26 (K6), Y10_27 (K4), Y2_27 (K4), YasnayaPolyana_27 (K4),

YoureAdopted_25 (K1), Yuna_27 (K6), Yunkel11_26 (K1), Zabiza_26 (K1), Zavala_26 (K1), ZoeJ_22 (K2),

Start 32:
• Found in 1 of 219 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 203
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Stellammi_15 (UNK),

Summary by clusters:

There are 10 clusters represented in this pham: singleton, UNK, K3, K2, K1, K7, K6, K5, K4, K8,

Info for manual annotations of cluster K1:
•Start number 29 was manually annotated 1 time for cluster K1.
•Start number 30 was manually annotated 1 time for cluster K1.
•Start number 31 was manually annotated 104 times for cluster K1.

Info for manual annotations of cluster K2:
•Start number 31 was manually annotated 11 times for cluster K2.

Info for manual annotations of cluster K3:
•Start number 31 was manually annotated 9 times for cluster K3.

Info for manual annotations of cluster K4:
•Start number 31 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:
•Start number 31 was manually annotated 25 times for cluster K5.

Info for manual annotations of cluster K6:
•Start number 31 was manually annotated 26 times for cluster K6.

Info for manual annotations of cluster K7:
•Start number 31 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:
•Start number 31 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster UNK:
•Start number 32 was manually annotated 1 time for cluster UNK.

Gene Information:

Gene: ActinUp_26 Start: 20572, Stop: 20880, Start Num: 31
Candidate Starts for ActinUp_26:
(Start: 31 @20572 has 199 MA's), (38, 20602), (46, 20680), (52, 20716),

Gene: Adephagia_26 Start: 20569, Stop: 20877, Start Num: 31
Candidate Starts for Adephagia_26:

(Start: 31 @20569 has 199 MA's), (38, 20599), (46, 20677), (52, 20713),

Gene: Adonis_26 Start: 20575, Stop: 20883, Start Num: 31
Candidate Starts for Adonis_26:
(Start: 31 @20575 has 199 MA's), (38, 20605), (46, 20683), (52, 20719),

Gene: Agent47_24 Start: 20955, Stop: 21272, Start Num: 31
Candidate Starts for Agent47_24:
(Start: 31 @20955 has 199 MA's), (47, 21069), (52, 21099), (54, 21126), (74, 21246),

Gene: AlishaPH_26 Start: 20562, Stop: 20870, Start Num: 31
Candidate Starts for AlishaPH_26:
(Start: 31 @20562 has 199 MA's), (38, 20592), (46, 20670), (52, 20706),

Gene: AlleyCat_25 Start: 20892, Stop: 21209, Start Num: 31
Candidate Starts for AlleyCat_25:
(Start: 31 @20892 has 199 MA's), (47, 21006), (54, 21063), (74, 21183),

Gene: Amelie_22 Start: 20111, Stop: 20413, Start Num: 31
Candidate Starts for Amelie_22:
(Start: 31 @20111 has 199 MA's), (46, 20219), (47, 20225), (52, 20255), (70, 20375),

Gene: Amgine_24 Start: 20660, Stop: 20974, Start Num: 31
Candidate Starts for Amgine_24:
(Start: 31 @20660 has 199 MA's), (42, 20720), (52, 20804), (72, 20951), (73, 20954),

Gene: Aminay_24 Start: 20780, Stop: 21034, Start Num: 31
Candidate Starts for Aminay_24:
(Start: 31 @20780 has 199 MA's), (38, 20810), (48, 20897), (53, 20939), (63, 21008),

Gene: Amohnition_25 Start: 21059, Stop: 21373, Start Num: 31
Candidate Starts for Amohnition_25:
(4, 20558), (6, 20579), (8, 20711), (13, 20852), (Start: 31 @21059 has 199 MA's), (42, 21119), (43, 21122), (52, 21203), (72, 21350), (73, 21353),

Gene: Anaya_27 Start: 20588, Stop: 20896, Start Num: 31
Candidate Starts for Anaya_27:
(Start: 31 @20588 has 199 MA's), (38, 20618), (46, 20696), (52, 20732), (63, 20816),

Gene: Angelica_26 Start: 20537, Stop: 20845, Start Num: 31
Candidate Starts for Angelica_26:
(Start: 31 @20537 has 199 MA's), (38, 20567), (46, 20645), (52, 20681),

Gene: Apocalypse_26 Start: 20540, Stop: 20848, Start Num: 31
Candidate Starts for Apocalypse_26:
(Start: 31 @20540 has 199 MA's), (38, 20570), (46, 20648), (52, 20684),

Gene: Applecrisp_24 Start: 21074, Stop: 21388, Start Num: 31
Candidate Starts for Applecrisp_24:
(Start: 31 @21074 has 199 MA's), (42, 21134), (52, 21218), (72, 21365), (73, 21368),

Gene: Asayake_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Asayake_26:

(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Atiba_26 Start: 20532, Stop: 20840, Start Num: 31
Candidate Starts for Atiba_26:
(Start: 31 @20532 has 199 MA's), (38, 20562), (46, 20640), (52, 20676),

Gene: BEEST_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for BEEST_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: BGlluviae_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for BGlluviae_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: BaghaKamala_26 Start: 20532, Stop: 20840, Start Num: 31
Candidate Starts for BaghaKamala_26:
(Start: 31 @20532 has 199 MA's), (38, 20562), (46, 20640), (52, 20676),

Gene: BananenDer11_24 Start: 20916, Stop: 21233, Start Num: 31
Candidate Starts for BananenDer11_24:
(Start: 31 @20916 has 199 MA's), (47, 21030), (52, 21060), (54, 21087), (74, 21207),

Gene: BarrelRoll_26 Start: 20555, Stop: 20863, Start Num: 31
Candidate Starts for BarrelRoll_26:
(Start: 31 @20555 has 199 MA's), (38, 20585), (46, 20663), (52, 20699),

Gene: Beezoo_26 Start: 20579, Stop: 20887, Start Num: 31
Candidate Starts for Beezoo_26:
(Start: 31 @20579 has 199 MA's), (38, 20609), (46, 20687), (52, 20723),

Gene: Belladonna_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Belladonna_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Bern_26 Start: 20523, Stop: 20831, Start Num: 31
Candidate Starts for Bern_26:
(Start: 31 @20523 has 199 MA's), (46, 20631), (52, 20667), (63, 20751),

Gene: Biglebops_22 Start: 20111, Stop: 20413, Start Num: 31
Candidate Starts for Biglebops_22:
(Start: 31 @20111 has 199 MA's), (46, 20219), (47, 20225), (52, 20255), (70, 20375),

Gene: Blizzard_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Blizzard_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Bobquesha_28 Start: 21779, Stop: 22024, Start Num: 31
Candidate Starts for Bobquesha_28:
(Start: 31 @21779 has 199 MA's), (63, 22007),

Gene: Boiiii_26 Start: 20605, Stop: 20913, Start Num: 31
Candidate Starts for Boiiii_26:
(Start: 31 @20605 has 199 MA's), (38, 20635), (46, 20713), (52, 20749),

Gene: Boilgate_23 Start: 20959, Stop: 21213, Start Num: 31
Candidate Starts for Boilgate_23:
(13, 20728), (Start: 31 @20959 has 199 MA's), (37, 20986), (42, 21019), (52, 21103),

Gene: BoostSeason_22 Start: 18449, Stop: 18703, Start Num: 31
Candidate Starts for BoostSeason_22:
(16, 18308), (28, 18437), (Start: 31 @18449 has 199 MA's), (38, 18479), (48, 18566), (63, 18677),

Gene: Bryler_25 Start: 19758, Stop: 20069, Start Num: 31
Candidate Starts for Bryler_25:
(Start: 31 @19758 has 199 MA's), (42, 19818), (52, 19902), (67, 20004),

Gene: CREW_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for CREW_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Cain_25 Start: 19746, Stop: 20057, Start Num: 31
Candidate Starts for Cain_25:
(Start: 31 @19746 has 199 MA's), (42, 19806), (52, 19890), (67, 19992),

Gene: CallaLilly_26 Start: 20526, Stop: 20834, Start Num: 31
Candidate Starts for CallaLilly_26:
(Start: 31 @20526 has 199 MA's), (38, 20556), (46, 20634), (52, 20670),

Gene: Capricorn_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Capricorn_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: CaseJules_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for CaseJules_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Chancellor_27 Start: 22045, Stop: 22290, Start Num: 31
Candidate Starts for Chancellor_27:
(Start: 31 @22045 has 199 MA's), (63, 22273),

Gene: Chavito_26 Start: 19940, Stop: 20242, Start Num: 31
Candidate Starts for Chavito_26:
(Start: 31 @19940 has 199 MA's), (39, 19976), (42, 20000), (46, 20048), (47, 20054), (52, 20084),

Gene: CheetoDust_26 Start: 20580, Stop: 20888, Start Num: 31
Candidate Starts for CheetoDust_26:
(Start: 31 @20580 has 199 MA's), (38, 20610), (46, 20688), (52, 20724),

Gene: Cheetobro_27 Start: 22042, Stop: 22287, Start Num: 31
Candidate Starts for Cheetobro_27:
(Start: 31 @22042 has 199 MA's), (63, 22270),

Gene: Chris_25 Start: 19832, Stop: 20134, Start Num: 31
Candidate Starts for Chris_25:
(12, 19604), (16, 19694), (18, 19715), (19, 19733), (25, 19808), (Start: 31 @19832 has 199 MA's), (43, 19895), (52, 19976), (61, 20039),

Gene: Clipper_26 Start: 20580, Stop: 20888, Start Num: 31
Candidate Starts for Clipper_26:
(Start: 31 @20580 has 199 MA's), (38, 20610), (46, 20688), (52, 20724),

Gene: Collard_24 Start: 20916, Stop: 21233, Start Num: 31
Candidate Starts for Collard_24:
(Start: 31 @20916 has 199 MA's), (47, 21030), (52, 21060), (54, 21087), (74, 21207),

Gene: CrimD_26 Start: 20541, Stop: 20849, Start Num: 31
Candidate Starts for CrimD_26:
(Start: 31 @20541 has 199 MA's), (38, 20571), (46, 20649), (52, 20685),

Gene: Curiosium_27 Start: 20274, Stop: 20582, Start Num: 31
Candidate Starts for Curiosium_27:
(Start: 31 @20274 has 199 MA's), (38, 20304), (46, 20382), (52, 20418),

Gene: Dadosky_25 Start: 20893, Stop: 21210, Start Num: 31
Candidate Starts for Dadosky_25:
(Start: 31 @20893 has 199 MA's), (47, 21007), (54, 21064), (74, 21184),

Gene: Dalmuri_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Dalmuri_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: DanSyl44_28 Start: 22048, Stop: 22293, Start Num: 31
Candidate Starts for DanSyl44_28:
(Start: 31 @22048 has 199 MA's), (63, 22276),

Gene: DarthP_25 Start: 21005, Stop: 21319, Start Num: 31
Candidate Starts for DarthP_25:
(4, 20504), (6, 20525), (8, 20657), (13, 20798), (Start: 31 @21005 has 199 MA's), (42, 21065), (43, 21068), (52, 21149), (72, 21296), (73, 21299),

Gene: Dartin_26 Start: 19927, Stop: 20229, Start Num: 31
Candidate Starts for Dartin_26:
(Start: 31 @19927 has 199 MA's), (39, 19963), (42, 19987), (46, 20035), (47, 20041), (52, 20071),

Gene: Deby_26 Start: 20537, Stop: 20845, Start Num: 31
Candidate Starts for Deby_26:
(Start: 31 @20537 has 199 MA's), (38, 20567), (46, 20645), (52, 20681),

Gene: Devera_26 Start: 20585, Stop: 20893, Start Num: 31
Candidate Starts for Devera_26:
(Start: 31 @20585 has 199 MA's), (38, 20615), (46, 20693), (52, 20729),

Gene: DismalFunk_22 Start: 18423, Stop: 18677, Start Num: 31
Candidate Starts for DismalFunk_22:
(16, 18282), (28, 18411), (Start: 31 @18423 has 199 MA's), (38, 18453), (48, 18540), (63, 18651),

Gene: DismalStressor_22 Start: 18423, Stop: 18677, Start Num: 31
Candidate Starts for DismalStressor_22:
(16, 18282), (28, 18411), (Start: 31 @18423 has 199 MA's), (38, 18453), (48, 18540), (63, 18651),

Gene: Dole_26 Start: 20587, Stop: 20895, Start Num: 31
Candidate Starts for Dole_26:
(Start: 31 @20587 has 199 MA's), (38, 20617), (46, 20695), (52, 20731),

Gene: DoubleChamp_24 Start: 20916, Stop: 21233, Start Num: 31
Candidate Starts for DoubleChamp_24:
(Start: 31 @20916 has 199 MA's), (47, 21030), (52, 21060), (54, 21087), (74, 21207),

Gene: Doughnut_22 Start: 18443, Stop: 18697, Start Num: 31
Candidate Starts for Doughnut_22:
(16, 18302), (28, 18431), (Start: 31 @18443 has 199 MA's), (38, 18473), (48, 18560), (63, 18671),

Gene: Durfee_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Durfee_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Edugator_24 Start: 20892, Stop: 21209, Start Num: 31
Candidate Starts for Edugator_24:
(Start: 31 @20892 has 199 MA's), (47, 21006), (54, 21063), (74, 21183),

Gene: Efra2_26 Start: 19773, Stop: 20081, Start Num: 31
Candidate Starts for Efra2_26:
(Start: 31 @19773 has 199 MA's), (38, 19803), (46, 19881), (52, 19917),

Gene: Ekdilam_23 Start: 20770, Stop: 21084, Start Num: 31
Candidate Starts for Ekdilam_23:
(8, 20422), (13, 20563), (Start: 31 @20770 has 199 MA's), (42, 20830), (52, 20914), (67, 21016),

Gene: Ellie_23 Start: 20744, Stop: 21058, Start Num: 31
Candidate Starts for Ellie_23:
(Start: 31 @20744 has 199 MA's), (42, 20804), (52, 20888), (72, 21035), (73, 21038),

Gene: Emerson_26 Start: 20563, Stop: 20871, Start Num: 31
Candidate Starts for Emerson_26:
(Start: 31 @20563 has 199 MA's), (38, 20593), (46, 20671), (52, 20707),

Gene: Enkosi_22 Start: 20111, Stop: 20413, Start Num: 31
Candidate Starts for Enkosi_22:
(Start: 31 @20111 has 199 MA's), (46, 20219), (47, 20225), (52, 20255), (70, 20375),

Gene: Eponine_27 Start: 21935, Stop: 22180, Start Num: 31
Candidate Starts for Eponine_27:
(Start: 31 @21935 has 199 MA's),

Gene: Fefferhead_25 Start: 20911, Stop: 21225, Start Num: 31
Candidate Starts for Fefferhead_25:
(Start: 31 @20911 has 199 MA's), (42, 20971), (52, 21055), (72, 21202), (73, 21205),

Gene: Feyre_24 Start: 20777, Stop: 21094, Start Num: 31
Candidate Starts for Feyre_24:
(Start: 31 @20777 has 199 MA's), (47, 20891), (52, 20921), (54, 20948), (74, 21068),

Gene: Findley_22 Start: 18423, Stop: 18677, Start Num: 31
Candidate Starts for Findley_22:
(Start: 31 @18423 has 199 MA's), (38, 18453), (42, 18483), (48, 18540), (63, 18651),

Gene: Fionnbharth_27 Start: 22035, Stop: 22280, Start Num: 31
Candidate Starts for Fionnbharth_27:
(Start: 31 @22035 has 199 MA's), (63, 22263),

Gene: Ganymede_27 Start: 20583, Stop: 20891, Start Num: 31
Candidate Starts for Ganymede_27:
(Start: 31 @20583 has 199 MA's), (38, 20613), (46, 20691), (52, 20727),

Gene: Gengar_24 Start: 20884, Stop: 21201, Start Num: 31
Candidate Starts for Gengar_24:
(Start: 31 @20884 has 199 MA's), (38, 20914), (47, 20998), (52, 21028), (54, 21055), (74, 21175), (75, 21181),

Gene: Geraldini_26 Start: 20579, Stop: 20887, Start Num: 31
Candidate Starts for Geraldini_26:
(Start: 31 @20579 has 199 MA's), (38, 20609), (46, 20687), (52, 20723),

Gene: Guanica15_26 Start: 19789, Stop: 20097, Start Num: 31
Candidate Starts for Guanica15_26:
(Start: 31 @19789 has 199 MA's), (38, 19819), (46, 19897), (52, 19933),

Gene: Guillsminger_24 Start: 20859, Stop: 21176, Start Num: 31
Candidate Starts for Guillsminger_24:
(Start: 31 @20859 has 199 MA's), (47, 20973), (52, 21003), (54, 21030), (74, 21150),

Gene: Hammy_25 Start: 21002, Stop: 21316, Start Num: 31
Candidate Starts for Hammy_25:
(4, 20501), (6, 20522), (8, 20654), (13, 20795), (Start: 31 @21002 has 199 MA's), (42, 21062), (43, 21065), (52, 21146), (72, 21293), (73, 21296),

Gene: HedwigODU_26 Start: 20572, Stop: 20880, Start Num: 31
Candidate Starts for HedwigODU_26:
(Start: 31 @20572 has 199 MA's), (38, 20602), (46, 20680), (52, 20716),

Gene: Heftyboy_24 Start: 21007, Stop: 21324, Start Num: 31
Candidate Starts for Heftyboy_24:
(Start: 31 @21007 has 199 MA's), (47, 21121), (52, 21151), (54, 21178), (74, 21298),

Gene: Homura_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Homura_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Hurricane_25 Start: 21014, Stop: 21331, Start Num: 31
Candidate Starts for Hurricane_25:
(Start: 31 @21014 has 199 MA's), (52, 21158), (58, 21203), (59, 21209), (74, 21308),

Gene: Hyperbowlee_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Hyperbowlee_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Illumine_26 Start: 20587, Stop: 20895, Start Num: 31
Candidate Starts for Illumine_26:
(Start: 31 @20587 has 199 MA's), (38, 20617), (46, 20695), (52, 20731),

Gene: Inky_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Inky_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: InvictusManeo_24 Start: 20959, Stop: 21276, Start Num: 31
Candidate Starts for InvictusManeo_24:
(Start: 31 @20959 has 199 MA's), (47, 21073), (52, 21103), (54, 21130), (74, 21250),

Gene: JAWS_26 Start: 20557, Stop: 20865, Start Num: 31
Candidate Starts for JAWS_26:
(Start: 31 @20557 has 199 MA's), (38, 20587), (46, 20665), (52, 20701),

Gene: JF1_27 Start: 22034, Stop: 22279, Start Num: 31
Candidate Starts for JF1_27:
(Start: 31 @22034 has 199 MA's), (63, 22262),

Gene: Jarvi_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Jarvi_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Jayhawk_26 Start: 20570, Stop: 20878, Start Num: 31
Candidate Starts for Jayhawk_26:
(Start: 31 @20570 has 199 MA's), (38, 20600), (46, 20678), (52, 20714),

Gene: Jeckyll_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Jeckyll_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Joy99_26 Start: 20532, Stop: 20840, Start Num: 31
Candidate Starts for Joy99_26:
(Start: 31 @20532 has 199 MA's), (38, 20562), (46, 20640), (52, 20676),

Gene: Juliette_27 Start: 21935, Stop: 22180, Start Num: 31
Candidate Starts for Juliette_27:
(Start: 31 @21935 has 199 MA's),

Gene: Keshu_25 Start: 21006, Stop: 21314, Start Num: 31
Candidate Starts for Keshu_25:
(Start: 31 @21006 has 199 MA's), (51, 21147), (58, 21195), (59, 21201), (71, 21288), (74, 21300),

Gene: Kheparia_28 Start: 20523, Stop: 20831, Start Num: 31
Candidate Starts for Kheparia_28:
(Start: 31 @20523 has 199 MA's), (46, 20631), (52, 20667), (63, 20751),

Gene: KiSi_25 Start: 19734, Stop: 20036, Start Num: 31
Candidate Starts for KiSi_25:
(Start: 31 @19734 has 199 MA's), (43, 19797), (52, 19878),

Gene: Kratio_23 Start: 20590, Stop: 20907, Start Num: 31
Candidate Starts for Kratio_23:
(Start: 31 @20590 has 199 MA's), (47, 20704), (52, 20734), (54, 20761), (74, 20881),

Gene: Kraw_27 Start: 21958, Stop: 22203, Start Num: 31
Candidate Starts for Kraw_27:
(Start: 31 @21958 has 199 MA's), (63, 22186),

Gene: Krueger_25 Start: 19703, Stop: 20014, Start Num: 31
Candidate Starts for Krueger_25:
(Start: 31 @19703 has 199 MA's), (42, 19763), (52, 19847), (53, 19862),

Gene: Larva_25 Start: 20760, Stop: 21077, Start Num: 31
Candidate Starts for Larva_25:
(Start: 31 @20760 has 199 MA's), (47, 20874), (54, 20931), (74, 21051),

Gene: LastHope_26 Start: 19866, Stop: 20174, Start Num: 31
Candidate Starts for LastHope_26:
(Start: 31 @19866 has 199 MA's), (42, 19926), (52, 20010), (67, 20112),

Gene: LaterM_26 Start: 20549, Stop: 20809, Start Num: 30
Candidate Starts for LaterM_26:
(10, 20258), (14, 20336), (17, 20402), (20, 20459), (21, 20462), (25, 20507), (Start: 30 @20549 has 1 MA's), (41, 20615), (43, 20621), (49, 20678), (63, 20783), (66, 20798),

Gene: Lavahound_24 Start: 20663, Stop: 20977, Start Num: 31
Candidate Starts for Lavahound_24:
(Start: 31 @20663 has 199 MA's), (42, 20723), (52, 20807), (72, 20954), (73, 20957),

Gene: LeMond_25 Start: 19805, Stop: 20107, Start Num: 31
Candidate Starts for LeMond_25:
(Start: 31 @19805 has 199 MA's), (43, 19868), (52, 19949),

Gene: Lea83_25 Start: 20994, Stop: 21302, Start Num: 31
Candidate Starts for Lea83_25:
(Start: 31 @20994 has 199 MA's), (51, 21135), (58, 21183), (59, 21189), (74, 21288),

Gene: Lebo14_27 Start: 22051, Stop: 22296, Start Num: 31
Candidate Starts for Lebo14_27:
(Start: 31 @22051 has 199 MA's), (63, 22279),

Gene: Leston_24 Start: 20989, Stop: 21306, Start Num: 31
Candidate Starts for Leston_24:
(Start: 31 @20989 has 199 MA's), (47, 21103), (52, 21133), (54, 21160), (74, 21280),

Gene: LilDirt_23 Start: 20716, Stop: 21033, Start Num: 31
Candidate Starts for LilDirt_23:
(Start: 31 @20716 has 199 MA's), (47, 20830), (52, 20860), (54, 20887), (74, 21007),

Gene: LilPharaoh_22 Start: 20111, Stop: 20413, Start Num: 31
Candidate Starts for LilPharaoh_22:
(Start: 31 @20111 has 199 MA's), (46, 20219), (47, 20225), (52, 20255), (70, 20375),

Gene: LindNT_26 Start: 20537, Stop: 20845, Start Num: 31
Candidate Starts for LindNT_26:
(Start: 31 @20537 has 199 MA's), (38, 20567), (46, 20645), (52, 20681), (63, 20765),

Gene: Llorens_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Llorens_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Lokum_26 Start: 20604, Stop: 20912, Start Num: 31
Candidate Starts for Lokum_26:
(Start: 31 @20604 has 199 MA's), (38, 20634), (46, 20712), (52, 20748),

Gene: Lunahalos_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Lunahalos_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: MacKat_26 Start: 20580, Stop: 20888, Start Num: 31
Candidate Starts for MacKat_26:
(Start: 31 @20580 has 199 MA's), (38, 20610), (46, 20688), (52, 20724),

Gene: MacnCheese_26 Start: 21248, Stop: 21556, Start Num: 31
Candidate Starts for MacnCheese_26:
(6, 20759), (8, 20891), (Start: 31 @21248 has 199 MA's), (38, 21278), (58, 21437), (59, 21443), (74, 21542),

Gene: Malthus_28 Start: 21958, Stop: 22203, Start Num: 31
Candidate Starts for Malthus_28:
(Start: 31 @21958 has 199 MA's), (63, 22186),

Gene: Marcoliusprime_22 Start: 18423, Stop: 18677, Start Num: 31
Candidate Starts for Marcoliusprime_22:
(16, 18282), (28, 18411), (Start: 31 @18423 has 199 MA's), (38, 18453), (48, 18540), (63, 18651),

Gene: MarkPhew_26 Start: 19694, Stop: 19996, Start Num: 31
Candidate Starts for MarkPhew_26:
(Start: 31 @19694 has 199 MA's), (43, 19757), (52, 19838),

Gene: Marshawn_27 Start: 20316, Stop: 20672, Start Num: 31
Candidate Starts for Marshawn_27:
(11, 20082), (16, 20178), (Start: 31 @20316 has 199 MA's), (39, 20352), (40, 20370), (42, 20376), (58, 20505), (60, 20517), (64, 20553),

Gene: McMater_26 Start: 19927, Stop: 20229, Start Num: 31
Candidate Starts for McMater_26:
(Start: 31 @19927 has 199 MA's), (39, 19963), (42, 19987), (46, 20035), (47, 20041), (52, 20071),

Gene: Mdavu_22 Start: 20099, Stop: 20401, Start Num: 31
Candidate Starts for Mdavu_22:
(Start: 31 @20099 has 199 MA's), (46, 20207), (47, 20213), (52, 20243), (70, 20363),

Gene: MeaningOfLife_26 Start: 20539, Stop: 20847, Start Num: 31
Candidate Starts for MeaningOfLife_26:
(Start: 31 @20539 has 199 MA's), (38, 20569), (46, 20647), (52, 20683),

Gene: Megsy_26 Start: 20540, Stop: 20848, Start Num: 31
Candidate Starts for Megsy_26:
(Start: 31 @20540 has 199 MA's), (38, 20570), (46, 20648), (52, 20684), (63, 20768),

Gene: Milly_22 Start: 18423, Stop: 18677, Start Num: 31
Candidate Starts for Milly_22:
(16, 18282), (23, 18372), (28, 18411), (Start: 31 @18423 has 199 MA's), (38, 18453), (48, 18540), (63, 18651),

Gene: Miryou_24 Start: 20844, Stop: 21161, Start Num: 31
Candidate Starts for Miryou_24:
(Start: 31 @20844 has 199 MA's), (47, 20958), (52, 20988), (54, 21015), (74, 21135),

Gene: MissDaisy_27 Start: 21797, Stop: 22042, Start Num: 31
Candidate Starts for MissDaisy_27:
(Start: 31 @21797 has 199 MA's), (63, 22025),

Gene: Mitti_27 Start: 21958, Stop: 22203, Start Num: 31
Candidate Starts for Mitti_27:
(Start: 31 @21958 has 199 MA's), (63, 22186),

Gene: Mufasa_22 Start: 18443, Stop: 18697, Start Num: 31
Candidate Starts for Mufasa_22:
(16, 18302), (28, 18431), (Start: 31 @18443 has 199 MA's), (38, 18473), (48, 18560), (63, 18671),

Gene: Murucutumbu_26 Start: 20523, Stop: 20831, Start Num: 31
Candidate Starts for Murucutumbu_26:
(Start: 31 @20523 has 199 MA's), (38, 20553), (46, 20631), (52, 20667),

Gene: Mynx_26 Start: 20586, Stop: 20894, Start Num: 31
Candidate Starts for Mynx_26:
(Start: 31 @20586 has 199 MA's), (38, 20616), (46, 20694), (52, 20730),

Gene: Neighly_25 Start: 20759, Stop: 21076, Start Num: 31
Candidate Starts for Neighly_25:
(Start: 31 @20759 has 199 MA's), (47, 20873), (54, 20930), (74, 21050),

Gene: Nibb_25 Start: 19835, Stop: 20137, Start Num: 31
Candidate Starts for Nibb_25:
(Start: 31 @19835 has 199 MA's), (43, 19898), (52, 19979), (67, 20081),

Gene: Nikao_22 Start: 20111, Stop: 20413, Start Num: 31
Candidate Starts for Nikao_22:
(Start: 31 @20111 has 199 MA's), (46, 20219), (47, 20225), (52, 20255), (70, 20375),

Gene: Niklas_26 Start: 19930, Stop: 20232, Start Num: 31
Candidate Starts for Niklas_26:
(Start: 31 @19930 has 199 MA's), (39, 19966), (42, 19990), (46, 20038), (47, 20044), (52, 20074),

Gene: Nolwazi_28 Start: 21959, Stop: 22204, Start Num: 31
Candidate Starts for Nolwazi_28:
(Start: 31 @21959 has 199 MA's), (63, 22187),

Gene: November_24 Start: 20899, Stop: 21213, Start Num: 31
Candidate Starts for November_24:
(Start: 31 @20899 has 199 MA's), (42, 20959), (43, 20962), (52, 21043), (72, 21190), (73, 21193),

Gene: Nutello_22 Start: 20111, Stop: 20413, Start Num: 31
Candidate Starts for Nutello_22:
(Start: 31 @20111 has 199 MA's), (46, 20219), (47, 20225), (52, 20255), (70, 20375),

Gene: OkiRoe_24 Start: 20860, Stop: 21177, Start Num: 31
Candidate Starts for OkiRoe_24:
(Start: 31 @20860 has 199 MA's), (47, 20974), (52, 21004), (54, 21031), (74, 21151),

Gene: OmniCritical_27 Start: 21943, Stop: 22188, Start Num: 31
Candidate Starts for OmniCritical_27:
(Start: 31 @21943 has 199 MA's), (63, 22171),

Gene: Omnicron_25 Start: 19679, Stop: 19996, Start Num: 31
Candidate Starts for Omnicron_25:
(Start: 31 @19679 has 199 MA's), (47, 19793), (52, 19823), (54, 19850), (74, 19970),

Gene: Oscar_25 Start: 19806, Stop: 20108, Start Num: 31
Candidate Starts for Oscar_25:
(Start: 31 @19806 has 199 MA's), (43, 19869), (52, 19950),

Gene: P3MA_21 Start: 17693, Stop: 17974, Start Num: 29
Candidate Starts for P3MA_21:
(26, 17678), (27, 17681), (Start: 29 @17693 has 2 MA's), (33, 17723), (35, 17729), (43, 17771), (45, 17780), (53, 17867), (56, 17891), (57, 17894), (62, 17927), (65, 17951),

Gene: Padfoot_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Padfoot_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Padpat_26 Start: 20563, Stop: 20871, Start Num: 31
Candidate Starts for Padpat_26:
(Start: 31 @20563 has 199 MA's), (38, 20593), (46, 20671), (52, 20707),

Gene: Paola_24 Start: 20859, Stop: 21176, Start Num: 31
Candidate Starts for Paola_24:
(Start: 31 @20859 has 199 MA's), (47, 20973), (52, 21003), (54, 21030), (74, 21150),

Gene: Patt_27 Start: 21776, Stop: 22021, Start Num: 31
Candidate Starts for Patt_27:
(Start: 31 @21776 has 199 MA's), (63, 22004),

Gene: Peanam_26 Start: 19927, Stop: 20229, Start Num: 31
Candidate Starts for Peanam_26:
(Start: 31 @19927 has 199 MA's), (39, 19963), (42, 19987), (46, 20035), (47, 20041), (52, 20071),

Gene: Peel_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Peel_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Pharb_25 Start: 20852, Stop: 21169, Start Num: 31
Candidate Starts for Pharb_25:
(4, 20342), (6, 20363), (8, 20495), (9, 20567), (Start: 31 @20852 has 199 MA's), (48, 20969), (67, 21098),

Gene: PhelpsODU_25 Start: 19781, Stop: 20092, Start Num: 31
Candidate Starts for PhelpsODU_25:
(Start: 31 @19781 has 199 MA's), (42, 19841), (52, 19925), (67, 20027),

Gene: Phrank_25 Start: 19734, Stop: 20045, Start Num: 31
Candidate Starts for Phrank_25:
(Start: 31 @19734 has 199 MA's), (42, 19794), (52, 19878), (67, 19980),

Gene: Piatt_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Piatt_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Pisa1_25 Start: 20637, Stop: 20945, Start Num: 31
Candidate Starts for Pisa1_25:
(Start: 31 @20637 has 199 MA's), (46, 20745), (52, 20781), (63, 20865),

Gene: Pisa4_25 Start: 20637, Stop: 20945, Start Num: 31
Candidate Starts for Pisa4_25:
(Start: 31 @20637 has 199 MA's), (46, 20745), (52, 20781), (63, 20865),

Gene: Pixie_25 Start: 20785, Stop: 21102, Start Num: 31
Candidate Starts for Pixie_25:
(Start: 31 @20785 has 199 MA's), (58, 20974), (59, 20980),

Gene: Pokerus_25 Start: 20520, Stop: 20828, Start Num: 31
Candidate Starts for Pokerus_25:
(Start: 31 @20520 has 199 MA's), (38, 20550), (46, 20628), (52, 20664),

Gene: Prithvi_26 Start: 20537, Stop: 20845, Start Num: 31
Candidate Starts for Prithvi_26:
(Start: 31 @20537 has 199 MA's), (38, 20567), (46, 20645), (52, 20681), (63, 20765),

Gene: Psycho_25 Start: 20890, Stop: 21207, Start Num: 31
Candidate Starts for Psycho_25:
(Start: 31 @20890 has 199 MA's), (47, 21004), (54, 21061), (74, 21181),

Gene: Qhanda_28 Start: 22054, Stop: 22299, Start Num: 31
Candidate Starts for Qhanda_28:
(Start: 31 @22054 has 199 MA's), (63, 22282),

Gene: QuincyRose_25 Start: 20583, Stop: 20891, Start Num: 31
Candidate Starts for QuincyRose_25:
(Start: 31 @20583 has 199 MA's), (38, 20613), (46, 20691), (52, 20727),

Gene: Ramen_26 Start: 20569, Stop: 20877, Start Num: 31
Candidate Starts for Ramen_26:
(Start: 31 @20569 has 199 MA's), (38, 20599), (46, 20677), (52, 20713),

Gene: Rando14_25 Start: 19578, Stop: 19880, Start Num: 31
Candidate Starts for Rando14_25:
(Start: 31 @19578 has 199 MA's), (47, 19692), (52, 19722), (54, 19749), (68, 19827), (74, 19869),

Gene: Rapunzel97_26 Start: 20570, Stop: 20878, Start Num: 31
Candidate Starts for Rapunzel97_26:
(Start: 31 @20570 has 199 MA's), (38, 20600), (46, 20678), (52, 20714),

Gene: Reptar3000_27 Start: 21775, Stop: 22020, Start Num: 31
Candidate Starts for Reptar3000_27:
(Start: 31 @21775 has 199 MA's), (48, 21892), (52, 21919), (63, 22003),

Gene: Richo_26 Start: 19927, Stop: 20229, Start Num: 31
Candidate Starts for Richo_26:
(Start: 31 @19927 has 199 MA's), (39, 19963), (42, 19987), (46, 20035), (47, 20041), (52, 20071),

Gene: Rosmarinus_26 Start: 20591, Stop: 20899, Start Num: 31
Candidate Starts for Rosmarinus_26:
(Start: 31 @20591 has 199 MA's), (38, 20621), (46, 20699), (52, 20735),

Gene: Ruthiejr_26 Start: 21666, Stop: 21911, Start Num: 31
Candidate Starts for Ruthiejr_26:
(Start: 31 @21666 has 199 MA's),

Gene: SamScheppers_25 Start: 21573, Stop: 21818, Start Num: 31
Candidate Starts for SamScheppers_25:
(Start: 31 @21573 has 199 MA's), (63, 21801),

Gene: Scarlett_25 Start: 19808, Stop: 20110, Start Num: 31
Candidate Starts for Scarlett_25:
(Start: 31 @19808 has 199 MA's), (43, 19871), (52, 19952),

Gene: SgtBeansprout_22 Start: 20111, Stop: 20413, Start Num: 31
Candidate Starts for SgtBeansprout_22:
(Start: 31 @20111 has 199 MA's), (46, 20219), (47, 20225), (52, 20255), (70, 20375),

Gene: Shadow1_24 Start: 19608, Stop: 19919, Start Num: 31
Candidate Starts for Shadow1_24:
(Start: 31 @19608 has 199 MA's), (42, 19668), (44, 19680), (52, 19752),

Gene: Shaobing_26 Start: 19927, Stop: 20229, Start Num: 31
Candidate Starts for Shaobing_26:
(Start: 31 @19927 has 199 MA's), (39, 19963), (42, 19987), (46, 20035), (47, 20041), (52, 20071),

Gene: ShedlockHolmes_25 Start: 20994, Stop: 21302, Start Num: 31
Candidate Starts for ShedlockHolmes_25:
(Start: 31 @20994 has 199 MA's), (51, 21135), (58, 21183), (59, 21189), (74, 21288),

Gene: ShiaSurprise_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for ShiaSurprise_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: SirPhilip_25 Start: 19446, Stop: 19754, Start Num: 31
Candidate Starts for SirPhilip_25:
(Start: 31 @19446 has 199 MA's), (42, 19506), (46, 19554), (52, 19590), (67, 19692),

Gene: Slarp_27 Start: 22045, Stop: 22290, Start Num: 31
Candidate Starts for Slarp_27:
(Start: 31 @22045 has 199 MA's), (63, 22273),

Gene: Slimphazie_26 Start: 20570, Stop: 20878, Start Num: 31
Candidate Starts for Slimphazie_26:
(Start: 31 @20570 has 199 MA's), (38, 20600), (46, 20678), (52, 20714),

Gene: SoSeph_24 Start: 21007, Stop: 21324, Start Num: 31
Candidate Starts for SoSeph_24:
(Start: 31 @21007 has 199 MA's), (47, 21121), (52, 21151), (54, 21178), (74, 21298),

Gene: Spock_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Spock_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Stellammi_15 Start: 13816, Stop: 14082, Start Num: 32
Candidate Starts for Stellammi_15:
(15, 13624), (22, 13735), (23, 13750), (Start: 32 @13816 has 1 MA's), (36, 13837), (42, 13873), (43, 13876), (47, 13927), (55, 13990),

Gene: Stinson_26 Start: 20535, Stop: 20807, Start Num: 29
Candidate Starts for Stinson_26:
(Start: 29 @20535 has 2 MA's), (34, 20574), (43, 20616), (44, 20622), (57, 20736), (61, 20760),

Gene: Stinson_27 Start: 20812, Stop: 21120, Start Num: 31
Candidate Starts for Stinson_27:
(24, 20773), (Start: 31 @20812 has 199 MA's), (38, 20842), (42, 20872), (44, 20884), (46, 20920), (52, 20956), (58, 21001), (63, 21040),

Gene: Strobilo_22 Start: 18423, Stop: 18677, Start Num: 31
Candidate Starts for Strobilo_22:
(Start: 31 @18423 has 199 MA's), (38, 18453), (42, 18483), (48, 18540), (63, 18651),

Gene: Sulley_26 Start: 20536, Stop: 20844, Start Num: 31
Candidate Starts for Sulley_26:
(Start: 31 @20536 has 199 MA's), (38, 20566), (46, 20644), (52, 20680),

Gene: Sunflower1121_24 Start: 19620, Stop: 19931, Start Num: 31
Candidate Starts for Sunflower1121_24:
(Start: 31 @19620 has 199 MA's), (42, 19680), (44, 19692), (52, 19764),

Gene: Syra333_25 Start: 19715, Stop: 20026, Start Num: 31
Candidate Starts for Syra333_25:
(Start: 31 @19715 has 199 MA's), (42, 19775), (52, 19859), (53, 19874), (58, 19904),

Gene: TBond007_25 Start: 20784, Stop: 21101, Start Num: 31
Candidate Starts for TBond007_25:
(Start: 31 @20784 has 199 MA's), (58, 20973), (59, 20979), (74, 21078),

Gene: TClif_25 Start: 19775, Stop: 20077, Start Num: 31
Candidate Starts for TClif_25:
(11, 19538), (Start: 31 @19775 has 199 MA's), (42, 19835), (44, 19847), (52, 19919),

Gene: TM4_22 Start: 18489, Stop: 18743, Start Num: 31
Candidate Starts for TM4_22:
(Start: 31 @18489 has 199 MA's), (38, 18519), (42, 18549), (45, 18564), (48, 18606), (63, 18717),

Gene: TPA4_23 Start: 21250, Stop: 21615, Start Num: 29
Candidate Starts for TPA4_23:
(1, 20305), (2, 20443), (3, 20446), (5, 20767), (7, 20902), (Start: 29 @21250 has 2 MA's), (43, 21328), (45, 21337), (46, 21370), (50, 21400), (53, 21424), (76, 21592),

Gene: Tachez_26 Start: 20532, Stop: 20840, Start Num: 31
Candidate Starts for Tachez_26:
(Start: 31 @20532 has 199 MA's), (38, 20562), (46, 20640), (52, 20676),

Gene: TaiwanKao_27 Start: 20543, Stop: 20851, Start Num: 31
Candidate Starts for TaiwanKao_27:
(Start: 31 @20543 has 199 MA's), (38, 20573), (46, 20651), (52, 20687), (63, 20771),

Gene: Taquito_25 Start: 21654, Stop: 21899, Start Num: 31
Candidate Starts for Taquito_25:
(Start: 31 @21654 has 199 MA's), (63, 21882),

Gene: Teejan_22 Start: 20111, Stop: 20413, Start Num: 31
Candidate Starts for Teejan_22:
(Start: 31 @20111 has 199 MA's), (46, 20219), (47, 20225), (52, 20255), (70, 20375),

Gene: Thyatira_24 Start: 20859, Stop: 21176, Start Num: 31
Candidate Starts for Thyatira_24:
(Start: 31 @20859 has 199 MA's), (47, 20973), (52, 21003), (54, 21030), (74, 21150),

Gene: Tierra_25 Start: 20455, Stop: 20766, Start Num: 31
Candidate Starts for Tierra_25:
(Start: 31 @20455 has 199 MA's), (42, 20515), (52, 20599), (67, 20701),

Gene: Tigress9_25 Start: 19703, Stop: 20014, Start Num: 31
Candidate Starts for Tigress9_25:
(Start: 31 @19703 has 199 MA's), (42, 19763), (52, 19847), (53, 19862),

Gene: TingHuaYa_26 Start: 19869, Stop: 20177, Start Num: 31
Candidate Starts for TingHuaYa_26:
(Start: 31 @19869 has 199 MA's), (42, 19929), (52, 20013), (67, 20115),

Gene: Tiri_26 Start: 20575, Stop: 20883, Start Num: 31
Candidate Starts for Tiri_26:
(Start: 31 @20575 has 199 MA's), (38, 20605), (46, 20683), (52, 20719),

Gene: Topper_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Topper_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Torres_22 Start: 20111, Stop: 20413, Start Num: 31
Candidate Starts for Torres_22:
(Start: 31 @20111 has 199 MA's), (46, 20219), (47, 20225), (52, 20255), (70, 20375),

Gene: TreyKay_26 Start: 20537, Stop: 20845, Start Num: 31
Candidate Starts for TreyKay_26:
(Start: 31 @20537 has 199 MA's), (38, 20567), (46, 20645), (52, 20681), (63, 20765),

Gene: TribleTrouble_24 Start: 20821, Stop: 21129, Start Num: 31
Candidate Starts for TribleTrouble_24:
(Start: 31 @20821 has 199 MA's), (52, 20965), (59, 21016), (69, 21073), (74, 21115),

Gene: Trice_22 Start: 20111, Stop: 20413, Start Num: 31
Candidate Starts for Trice_22:
(Start: 31 @20111 has 199 MA's), (46, 20219), (47, 20225), (52, 20255), (70, 20375),

Gene: TruffulaTree_26 Start: 20566, Stop: 20874, Start Num: 31
Candidate Starts for TruffulaTree_26:
(Start: 31 @20566 has 199 MA's), (38, 20596), (46, 20674), (51, 20707), (52, 20710),

Gene: Twitch_26 Start: 20603, Stop: 20911, Start Num: 31
Candidate Starts for Twitch_26:
(Start: 31 @20603 has 199 MA's), (38, 20633), (46, 20711), (52, 20747),

Gene: Unicorn_25 Start: 19781, Stop: 20092, Start Num: 31
Candidate Starts for Unicorn_25:
(Start: 31 @19781 has 199 MA's), (42, 19841), (52, 19925), (67, 20027),

Gene: Validus_26 Start: 19858, Stop: 20166, Start Num: 31
Candidate Starts for Validus_26:
(Start: 31 @19858 has 199 MA's), (42, 19918), (52, 20002), (63, 20086), (67, 20104),

Gene: Veliki_26 Start: 20606, Stop: 20914, Start Num: 31
Candidate Starts for Veliki_26:
(Start: 31 @20606 has 199 MA's), (38, 20636), (46, 20714), (52, 20750),

Gene: ViviJ_23 Start: 20716, Stop: 21033, Start Num: 31
Candidate Starts for ViviJ_23:
(Start: 31 @20716 has 199 MA's), (47, 20830), (52, 20860), (54, 20887), (74, 21007),

Gene: Waterfoul_24 Start: 20880, Stop: 21197, Start Num: 31
Candidate Starts for Waterfoul_24:
(Start: 31 @20880 has 199 MA's), (47, 20994), (52, 21024), (54, 21051), (74, 21171),

Gene: Wintermute_27 Start: 22034, Stop: 22279, Start Num: 31
Candidate Starts for Wintermute_27:
(Start: 31 @22034 has 199 MA's), (63, 22262),

Gene: Ximenita_26 Start: 19893, Stop: 20204, Start Num: 31
Candidate Starts for Ximenita_26:
(Start: 31 @19893 has 199 MA's), (42, 19953), (52, 20037), (53, 20052), (58, 20082),

Gene: Y10_27 Start: 22034, Stop: 22279, Start Num: 31
Candidate Starts for Y10_27:
(Start: 31 @22034 has 199 MA's), (63, 22262),

Gene: Y2_27 Start: 22034, Stop: 22279, Start Num: 31
Candidate Starts for Y2_27:
(Start: 31 @22034 has 199 MA's), (63, 22262),

Gene: YasnayaPolyana_27 Start: 22035, Stop: 22280, Start Num: 31
Candidate Starts for YasnayaPolyana_27:
(Start: 31 @22035 has 199 MA's), (63, 22263),

Gene: YoureAdopted_25 Start: 20539, Stop: 20847, Start Num: 31
Candidate Starts for YoureAdopted_25:
(Start: 31 @20539 has 199 MA's), (38, 20569), (46, 20647), (52, 20683),

Gene: Yuna_27 Start: 20510, Stop: 20818, Start Num: 31
Candidate Starts for Yuna_27:
(Start: 31 @20510 has 199 MA's), (52, 20654), (67, 20756),

Gene: Yunkel11_26 Start: 19789, Stop: 20097, Start Num: 31
Candidate Starts for Yunkel11_26:
(Start: 31 @19789 has 199 MA's), (38, 19819), (46, 19897), (52, 19933),

Gene: Zabiza_26 Start: 20570, Stop: 20878, Start Num: 31
Candidate Starts for Zabiza_26:
(Start: 31 @20570 has 199 MA's), (38, 20600), (46, 20678), (52, 20714),

Gene: Zavala_26 Start: 20545, Stop: 20853, Start Num: 31
Candidate Starts for Zavala_26:
(Start: 31 @20545 has 199 MA's), (38, 20575), (46, 20653), (52, 20689),

Gene: ZoeJ_22 Start: 18364, Stop: 18618, Start Num: 31
Candidate Starts for ZoeJ_22:
(28, 18352), (Start: 31 @18364 has 199 MA's), (38, 18394), (48, 18481), (63, 18592),