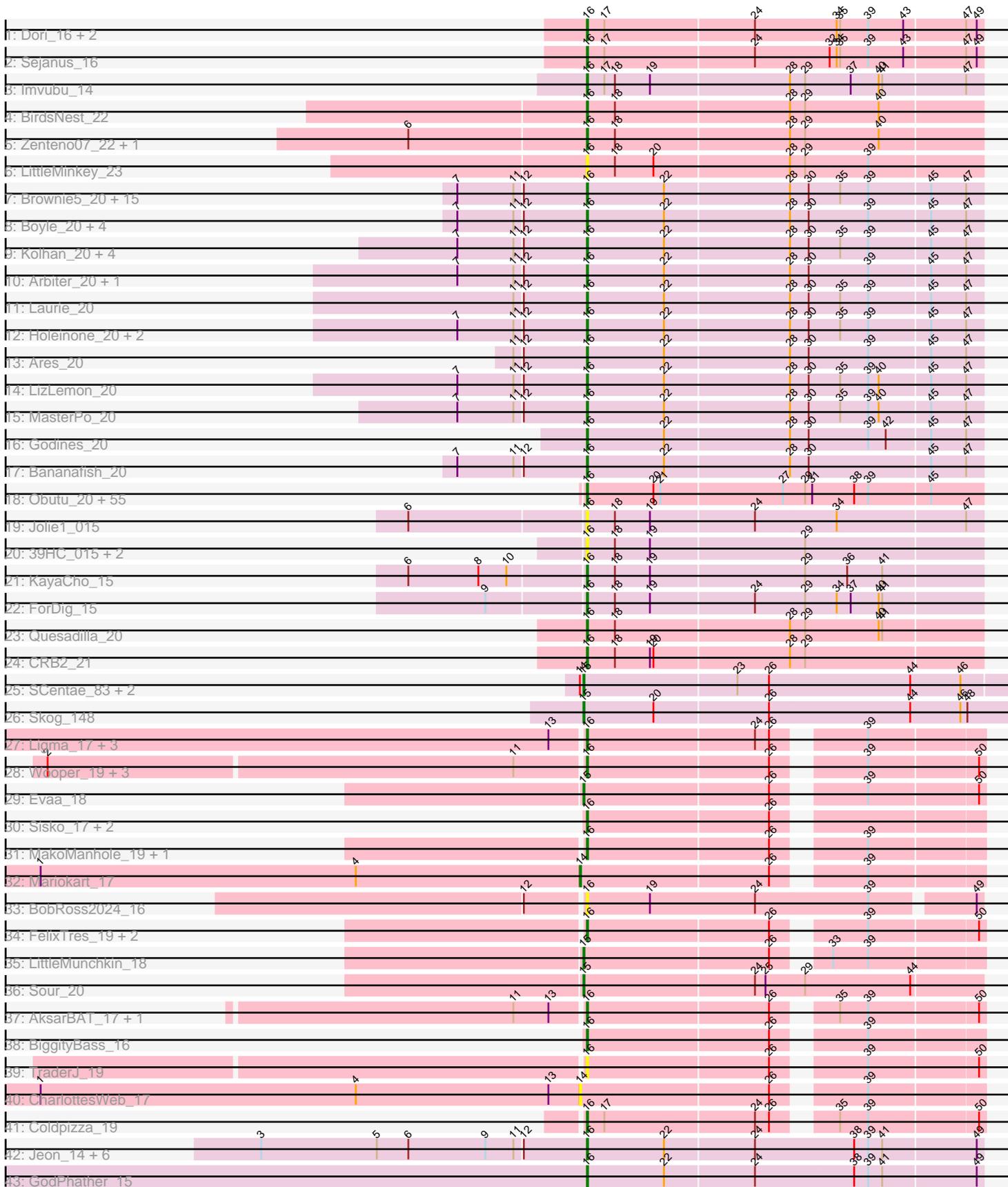# Pham 283563

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 283563 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283563 has 149 members, 19 are drafts.

Phages represented in each track:
• Track 1 : Dori_16, Mask_16, Mao1_15
• Track 2 : Sejanus_16
• Track 3 : Imvubu_14
• Track 4 : BirdsNest_22
• Track 5 : Zenteno07_22, Hashim76_22
• Track 6 : LittleMinkey_23
• Track 7 : Brownie5_20, Eaglehorse_20, Opia_20, Lars_20, Hedgerow_20, Kaleb_20, PrinceCharming_20, Tinciduntsolum_21, West99_20, TA17A_20, Sabella_20, Tres_20, Kheth_20, Lephleur_20, Rhinoforte_20, FrenchFry_20
• Track 8 : Boyle_20, Coffee_20, Rosebush_20, Phantasmagoria_20, Blocker23_20
• Track 9 : Kolhan_20, LilSmirk_20, Calamitous_20, Faze9_20, ItsyBitsy1_20
• Track 10 : Arbiter_20, Qyrzula_19
• Track 11 : Laurie_20
• Track 12 : Holeinone_20, Glass_20, Allegro_20
• Track 13 : Ares_20
• Track 14 : LizLemon_20
• Track 15 : MasterPo_20
• Track 16 : Godines_20
• Track 17 : Bananafish_20
• Track 18 : Obutu_20, Mulaychimus_20, Philly_19, Jackstina_19, Ben11_19, Bernardo_20, RagingRooster_20, GlenHope_21, Corofin_20, Tydolla_20, Baloo_20, Gervas_20, Briakila_20, HarveySr_20, OrangeOswald_20, Morty007_20, RomaT_20, Audrey_20, Rita1961_20, Phlyer_20, Pipefish_20, Shenandoah_20, ChaChing_20, Phayeta_20, Athena_21, Olivio_19, Daisy_20, Marley1013_20, SwainyDoc_20, Glubnar_21, Devonte_20, TinyTerror_20, Gadjet_21, Neos5_20, Marlia_20, Heathcliff_20, Kronus_19, Chentzyk_19, SynergyX_20, Akoma_20, LestyG_20, Halfpint_19, Yahalom_20, Phaedrus_19, Casbah_19, SlippinJimmy_20, MmasiCarm_20, Yinz_20, Chandler_20, Compostia_21, Chalmers_20, Mortcellus_19, Abinghost_20, Deenasa_20, Nozo_20, Kamiyu_20
• Track 19 : Jolie1_015
• Track 20 : 39HC_015, Hosp_013, 40BC_015
• Track 21 : KayaCho_15
• Track 22 : ForDig_15
• Track 23 : Quesadilla_20
• Track 24 : CRB2_21
• Track 25 : SCentae_83, CherryTomatoes_85, Pupper_85
• Track 26 : Skog_148

- Track 27 : Ligma_17, Fresco_17, Axumite_17, Shatter_17
- Track 28 : Wooper_19, Yeshua_19, AnarQue_19, CaiB_19
- Track 29 : Evaa_18
- Track 30 : Sisko_17, Yago84_17, AnClar_17
- Track 31 : MakoManhole_19, CloverMinnie_19
- Track 32 : Mariokart_17
- Track 33 : BobRoss2024_16
- Track 34 : FelixTres_19, MossRose_19, Blackpen_19
- Track 35 : LittleMunchkin_18
- Track 36 : Sour_20
- Track 37 : AksarBAT_17, NHagos_17
- Track 38 : BiggityBass_16
- Track 39 : TraderJ_19
- Track 40 : CharlottesWeb_17
- Track 41 : Coldpizza_19
- Track 42 : Jeon_14, Taptic_14, PR_14, Argie_15, Megabear_14, Cepens_14, D12_14
- Track 43 : GodPhather_15

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

The start number called the most often in the published annotations is 16, it was called in 122 of the 130 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- 39HC_015, 40BC_015, Abinghost_20, Akoma_20, AksarBAT_17, Allegro_20, AnClar_17, AnarQue_19, Arbiter_20, Ares_20, Argie_15, Athena_21, Audrey_20, Axumite_17, Baloo_20, Bananafish_20, Ben11_19, Bernardo_20, BiggityBass_16, BirdsNest_22, Blackpen_19, Blocker23_20, BobRoss2024_16, Boyle_20, Briakila_20, Brownie5_20, CRB2_21, CaiB_19, Calamitous_20, Casbah_19, Cepens_14, ChaChing_20, Chalmers_20, Chandler_20, Chentzyk_19, CloverMinnie_19, Coffee_20, Coldpizza_19, Compostia_21, Corofin_20, D12_14, Daisy_20, Deenasa_20, Devonte_20, Dori_16, Eaglehorse_20, Faze9_20, FelixTres_19, ForDig_15, FrenchFry_20, Fresco_17, Gadjet_21, Gervas_20, Glass_20, GlenHope_21, Glubnar_21, GodPhather_15, Godines_20, Halfpint_19, HarveySr_20, Hashim76_22, Heathcliff_20, Hedgerow_20, Holeinone_20, Hosp_013, Imvubu_14, ItsyBitsy1_20, Jackstina_19, Jeon_14, Jolie1_015, Kaleb_20, Kamiyu_20, KayaCho_15, Kheth_20, Kolhan_20, Kronus_19, Lars_20, Laurie_20, Lephleur_20, LestyG_20, Ligma_17, LilSmirk_20, LittleMinkey_23, LizLemon_20, MakoManhole_19, Mao1_15, Marley1013_20, Marlia_20, Mask_16, MasterPo_20, Megabear_14, MmasiCarm_20, Mortcellus_19, Morty007_20, MossRose_19, Mulaychimus_20, NHagos_17, Neos5_20, Nozo_20, Obutu_20, Olivio_19, Opia_20, OrangeOswald_20, PR_14, Phaedrus_19, Phantasmagoria_20, Phayeta_20, Philly_19, Phlyer_20, Pipefish_20, PrinceCharming_20, Quesadilla_20, Qyrzula_19, RagingRooster_20, Rhinoforte_20, Rita1961_20, RomaT_20, Rosebush_20, Sabella_20, Sejanus_16, Shatter_17, Shenandoah_20, Sisko_17, SlippinJimmy_20, SwainyDoc_20, SynergyX_20, TA17A_20, Taptic_14, Tinciduntsolum_21, TinyTerror_20, TraderJ_19, Tres_20, Tydolla_20, West99_20, Wooper_19, Yago84_17, Yahalom_20, Yeshua_19, Yinz_20, Zenteno07_22,

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

Genes that do not have the "Most Annotated" start:
• CharlottesWeb_17, CherryTomatoes_85, Evaa_18, LittleMunchkin_18, Mariokart_17, Pupper_85, SCentae_83, Skog_148, Sour_20,

Summary by start number:

Start 14:
• Found in 5 of 149 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 130
• Called 40.0% of time when present
• Phage (with cluster) where this start called: CharlottesWeb_17 (DR), Mariokart_17 (DR),

Start 15:
• Found in 7 of 149 (4.7%) of genes in pham
• Manual Annotations of this start: 7 of 130
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CherryTomatoes_85 (DO), Evaa_18 (DR), LittleMunchkin_18 (DR), Pupper_85 (DO), SCentae_83 (DO), Skog_148 (DO), Sour_20 (DR),

Start 16:
• Found in 140 of 149 (94.0%) of genes in pham
• Manual Annotations of this start: 122 of 130
• Called 100.0% of time when present
• Phage (with cluster) where this start called: 39HC_015 (B6), 40BC_015 (B6), Abinghost_20 (B3), Akoma_20 (B3), AksarBAT_17 (DR), Allegro_20 (B2), AnClar_17 (DR), AnarQue_19 (DR), Arbiter_20 (B2), Ares_20 (B2), Argie_15 (W), Athena_21 (B3), Audrey_20 (B3), Axumite_17 (DR), Baloo_20 (B3), Bananafish_20 (B2), Ben11_19 (B3), Bernardo_20 (B3), BiggityBass_16 (DR), BirdsNest_22 (B13), Blackpen_19 (DR), Blocker23_20 (B2), BobRoss2024_16 (DR), Boyle_20 (B2), Briakila_20 (B3), Brownie5_20 (B2), CRB2_21 (B9), CaiB_19 (DR), Calamitous_20 (B2), Casbah_19 (B3), Cepens_14 (W), ChaChing_20 (B3), Chalmers_20 (B3), Chandler_20 (B3), Chentzyk_19 (B3), CloverMinnie_19 (DR), Coffee_20 (B2), Coldpizza_19 (DR), Compostia_21 (B3), Corofin_20 (B3), D12_14 (W), Daisy_20 (B3), Deenasa_20 (B3), Devonte_20 (B3), Dori_16 (AD), Eaglehorse_20 (B2), Faze9_20 (B2), FelixTres_19 (DR), ForDig_15 (B6), FrenchFry_20 (B2), Fresco_17 (DR), Gadjet_21 (B3), Gervas_20 (B3), Glass_20 (B2), GlenHope_21 (B3), Glubnar_21 (B3), GodPhather_15 (W), Godines_20 (B2), Halfpint_19 (B3), HarveySr_20 (B3), Hashim76_22 (B13), Heathcliff_20 (B3), Hedgerow_20 (B2), Holeinone_20 (B2), Hosp_013 (B6), Imvubu_14 (B10), ItsyBitsy1_20 (B2), Jackstina_19 (B3), Jeon_14 (W), Jolie1_015 (B6), Kaleb_20 (B2), Kamiyu_20 (B3), KayaCho_15 (B6), Kheth_20 (B2), Kolhan_20 (B2), Kronus_19 (B3), Lars_20 (B2), Laurie_20 (B2), Lephleur_20 (B2), LestyG_20 (B3), Ligma_17 (DR), LilSmirk_20 (B2), LittleMinkey_23 (B13), LizLemon_20 (B2), MakoManhole_19 (DR), Mao1_15 (AD), Marley1013_20 (B3), Marlia_20 (B3), Mask_16 (AD), MasterPo_20 (B2), Megabear_14 (W), MmasiCarm_20 (B3), Mortcellus_19 (B3), Morty007_20 (B3), MossRose_19 (DR), Mulaychimus_20 (B3), NHagos_17 (DR), Neos5_20 (B3), Nozo_20 (B3), Obutu_20 (B3), Olivio_19 (B3), Opia_20 (B2), OrangeOswald_20 (B3), PR_14 (W), Phaedrus_19 (B3), Phantasmagoria_20 (B2), Phayeta_20 (B3), Philly_19

(B3), Phlyer_20 (B3), Pipefish_20 (B3), PrinceCharming_20 (B2), Quesadilla_20 (B9), Qyrzula_19 (B2), RagingRooster_20 (B3), Rhinoforte_20 (B2), Rita1961_20 (B3), RomaT_20 (B3), Rosebush_20 (B2), Sabella_20 (B2), Sejanus_16 (AD), Shatter_17 (DR), Shenandoah_20 (B3), Sisko_17 (DR), SlippinJimmy_20 (B3), SwainyDoc_20 (B3), SynergyX_20 (B3), TA17A_20 (B2), Taptic_14 (W), Tinciduntsolum_21 (B2), TinyTerror_20 (B3), TraderJ_19 (DR), Tres_20 (B2), Tydolla_20 (B3), West99_20 (B2), Wooper_19 (DR), Yago84_17 (DR), Yahalom_20 (B3), Yeshua_19 (DR), Yinz_20 (B3), Zenteno07_22 (B13),

Summary by clusters:

There are 10 clusters represented in this pham: DO, B2, W, B6, B13, B10, B3, DR, B9, AD,

Info for manual annotations of cluster AD:
•Start number 16 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster B10:
•Start number 16 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B13:
•Start number 16 was manually annotated 3 times for cluster B13.

Info for manual annotations of cluster B2:
•Start number 16 was manually annotated 35 times for cluster B2.

Info for manual annotations of cluster B3:
•Start number 16 was manually annotated 50 times for cluster B3.

Info for manual annotations of cluster B6:
•Start number 16 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster B9:
•Start number 16 was manually annotated 2 times for cluster B9.

Info for manual annotations of cluster DO:
•Start number 15 was manually annotated 4 times for cluster DO.

Info for manual annotations of cluster DR:
•Start number 14 was manually annotated 1 time for cluster DR.
•Start number 15 was manually annotated 3 times for cluster DR.
•Start number 16 was manually annotated 17 times for cluster DR.

Info for manual annotations of cluster W:
•Start number 16 was manually annotated 8 times for cluster W.

Gene Information:

Gene: 39HC_015 Start: 14564, Stop: 14896, Start Num: 16
Candidate Starts for 39HC_015:
(Start: 16 @14564 has 122 MA's), (18, 14588), (19, 14618), (29, 14747),

Gene: 40BC_015 Start: 14564, Stop: 14896, Start Num: 16
Candidate Starts for 40BC_015:
(Start: 16 @14564 has 122 MA's), (18, 14588), (19, 14618), (29, 14747),

Gene: Abinghost_20 Start: 15937, Stop: 16269, Start Num: 16
Candidate Starts for Abinghost_20:
(Start: 16 @15937 has 122 MA's), (20, 15994), (21, 16000), (27, 16102), (29, 16120), (31, 16126), (38, 16162), (39, 16174), (45, 16225),

Gene: Akoma_20 Start: 15937, Stop: 16269, Start Num: 16
Candidate Starts for Akoma_20:
(Start: 16 @15937 has 122 MA's), (20, 15994), (21, 16000), (27, 16102), (29, 16120), (31, 16126), (38, 16162), (39, 16174), (45, 16225),

Gene: AksarBAT_17 Start: 14183, Stop: 14494, Start Num: 16
Candidate Starts for AksarBAT_17:
(11, 14126), (13, 14156), (Start: 16 @14183 has 122 MA's), (26, 14336), (35, 14375), (39, 14399), (50, 14489),

Gene: Allegro_20 Start: 17157, Stop: 17489, Start Num: 16
Candidate Starts for Allegro_20:
(7, 17055), (11, 17103), (12, 17109), (Start: 16 @17157 has 122 MA's), (22, 17223), (28, 17328), (30, 17343), (35, 17370), (39, 17394), (45, 17445), (47, 17475),

Gene: AnClar_17 Start: 15101, Stop: 15412, Start Num: 16
Candidate Starts for AnClar_17:
(Start: 16 @15101 has 122 MA's), (26, 15254),

Gene: AnarQue_19 Start: 15725, Stop: 16036, Start Num: 16
Candidate Starts for AnarQue_19:
(2, 15275), (11, 15668), (Start: 16 @15725 has 122 MA's), (26, 15878), (39, 15941), (50, 16031),

Gene: Arbiter_20 Start: 17244, Stop: 17576, Start Num: 16
Candidate Starts for Arbiter_20:
(7, 17142), (11, 17190), (12, 17196), (Start: 16 @17244 has 122 MA's), (22, 17310), (28, 17415), (30, 17430), (39, 17481), (45, 17532), (47, 17562),

Gene: Ares_20 Start: 17157, Stop: 17489, Start Num: 16
Candidate Starts for Ares_20:
(11, 17103), (12, 17109), (Start: 16 @17157 has 122 MA's), (22, 17223), (28, 17328), (30, 17343), (39, 17394), (45, 17445), (47, 17475),

Gene: Argie_15 Start: 15255, Stop: 15587, Start Num: 16
Candidate Starts for Argie_15:
(3, 14985), (5, 15084), (6, 15111), (9, 15177), (11, 15201), (12, 15207), (Start: 16 @15255 has 122 MA's), (22, 15321), (24, 15396), (38, 15480), (39, 15492), (41, 15504), (49, 15582),

Gene: Athena_21 Start: 16700, Stop: 17032, Start Num: 16
Candidate Starts for Athena_21:
(Start: 16 @16700 has 122 MA's), (20, 16757), (21, 16763), (27, 16865), (29, 16883), (31, 16889), (38, 16925), (39, 16937), (45, 16988),

Gene: Audrey_20 Start: 15937, Stop: 16269, Start Num: 16
Candidate Starts for Audrey_20:
(Start: 16 @15937 has 122 MA's), (20, 15994), (21, 16000), (27, 16102), (29, 16120), (31, 16126), (38, 16162), (39, 16174), (45, 16225),

Gene: Axumite_17 Start: 14287, Stop: 14598, Start Num: 16
Candidate Starts for Axumite_17:
(13, 14260), (Start: 16 @14287 has 122 MA's), (24, 14428), (26, 14440), (39, 14503),

Gene: Baloo_20 Start: 15934, Stop: 16266, Start Num: 16
Candidate Starts for Baloo_20:
(Start: 16 @15934 has 122 MA's), (20, 15991), (21, 15997), (27, 16099), (29, 16117), (31, 16123), (38, 16159), (39, 16171), (45, 16222),

Gene: Bananafish_20 Start: 17154, Stop: 17486, Start Num: 16
Candidate Starts for Bananafish_20:
(7, 17052), (11, 17100), (12, 17106), (Start: 16 @17154 has 122 MA's), (22, 17220), (28, 17325), (30, 17340), (45, 17442), (47, 17472),

Gene: Ben11_19 Start: 15761, Stop: 16093, Start Num: 16
Candidate Starts for Ben11_19:
(Start: 16 @15761 has 122 MA's), (20, 15818), (21, 15824), (27, 15926), (29, 15944), (31, 15950), (38, 15986), (39, 15998), (45, 16049),

Gene: Bernardo_20 Start: 15936, Stop: 16268, Start Num: 16
Candidate Starts for Bernardo_20:
(Start: 16 @15936 has 122 MA's), (20, 15993), (21, 15999), (27, 16101), (29, 16119), (31, 16125), (38, 16161), (39, 16173), (45, 16224),

Gene: BiggityBass_16 Start: 14198, Stop: 14509, Start Num: 16
Candidate Starts for BiggityBass_16:
(Start: 16 @14198 has 122 MA's), (26, 14351), (39, 14414),

Gene: BirdsNest_22 Start: 15252, Stop: 15584, Start Num: 16
Candidate Starts for BirdsNest_22:
(Start: 16 @15252 has 122 MA's), (18, 15276), (28, 15423), (29, 15435), (40, 15498),

Gene: Blackpen_19 Start: 15142, Stop: 15453, Start Num: 16
Candidate Starts for Blackpen_19:
(Start: 16 @15142 has 122 MA's), (26, 15295), (39, 15358), (50, 15448),

Gene: Blocker23_20 Start: 17274, Stop: 17606, Start Num: 16
Candidate Starts for Blocker23_20:
(7, 17172), (11, 17220), (12, 17226), (Start: 16 @17274 has 122 MA's), (22, 17340), (28, 17445), (30, 17460), (39, 17511), (45, 17562), (47, 17592),

Gene: BobRoss2024_16 Start: 14069, Stop: 14395, Start Num: 16
Candidate Starts for BobRoss2024_16:
(12, 14021), (Start: 16 @14069 has 122 MA's), (19, 14123), (24, 14213), (39, 14309), (49, 14390),

Gene: Boyle_20 Start: 17275, Stop: 17607, Start Num: 16
Candidate Starts for Boyle_20:

(7, 17173), (11, 17221), (12, 17227), (Start: 16 @17275 has 122 MA's), (22, 17341), (28, 17446), (30, 17461), (39, 17512), (45, 17563), (47, 17593),

Gene: Briakila_20 Start: 16702, Stop: 17034, Start Num: 16
Candidate Starts for Briakila_20:
(Start: 16 @16702 has 122 MA's), (20, 16759), (21, 16765), (27, 16867), (29, 16885), (31, 16891), (38, 16927), (39, 16939), (45, 16990),

Gene: Brownie5_20 Start: 17274, Stop: 17606, Start Num: 16
Candidate Starts for Brownie5_20:
(7, 17172), (11, 17220), (12, 17226), (Start: 16 @17274 has 122 MA's), (22, 17340), (28, 17445), (30, 17460), (35, 17487), (39, 17511), (45, 17562), (47, 17592),

Gene: CRB2_21 Start: 17511, Stop: 17843, Start Num: 16
Candidate Starts for CRB2_21:
(Start: 16 @17511 has 122 MA's), (18, 17535), (19, 17565), (20, 17568), (28, 17682), (29, 17694),

Gene: CaiB_19 Start: 15710, Stop: 16021, Start Num: 16
Candidate Starts for CaiB_19:
(2, 15260), (11, 15653), (Start: 16 @15710 has 122 MA's), (26, 15863), (39, 15926), (50, 16016),

Gene: Calamitous_20 Start: 17154, Stop: 17486, Start Num: 16
Candidate Starts for Calamitous_20:
(7, 17052), (11, 17100), (12, 17106), (Start: 16 @17154 has 122 MA's), (22, 17220), (28, 17325), (30, 17340), (35, 17367), (39, 17391), (45, 17442), (47, 17472),

Gene: Casbah_19 Start: 15789, Stop: 16121, Start Num: 16
Candidate Starts for Casbah_19:
(Start: 16 @15789 has 122 MA's), (20, 15846), (21, 15852), (27, 15954), (29, 15972), (31, 15978), (38, 16014), (39, 16026), (45, 16077),

Gene: Cepens_14 Start: 14979, Stop: 15311, Start Num: 16
Candidate Starts for Cepens_14:
(3, 14709), (5, 14808), (6, 14835), (9, 14901), (11, 14925), (12, 14931), (Start: 16 @14979 has 122 MA's), (22, 15045), (24, 15120), (38, 15204), (39, 15216), (41, 15228), (49, 15306),

Gene: ChaChing_20 Start: 15952, Stop: 16284, Start Num: 16
Candidate Starts for ChaChing_20:
(Start: 16 @15952 has 122 MA's), (20, 16009), (21, 16015), (27, 16117), (29, 16135), (31, 16141), (38, 16177), (39, 16189), (45, 16240),

Gene: Chalmers_20 Start: 16745, Stop: 17077, Start Num: 16
Candidate Starts for Chalmers_20:
(Start: 16 @16745 has 122 MA's), (20, 16802), (21, 16808), (27, 16910), (29, 16928), (31, 16934), (38, 16970), (39, 16982), (45, 17033),

Gene: Chandler_20 Start: 16711, Stop: 17043, Start Num: 16
Candidate Starts for Chandler_20:
(Start: 16 @16711 has 122 MA's), (20, 16768), (21, 16774), (27, 16876), (29, 16894), (31, 16900), (38, 16936), (39, 16948), (45, 16999),

Gene: CharlottesWeb_17 Start: 14197, Stop: 14514, Start Num: 14
Candidate Starts for CharlottesWeb_17:

(1, 13735), (4, 14005), (13, 14170), (Start: 14 @14197 has 1 MA's), (26, 14356), (39, 14419),

Gene: Chentzyk_19 Start: 15807, Stop: 16139, Start Num: 16
Candidate Starts for Chentzyk_19:
(Start: 16 @15807 has 122 MA's), (20, 15864), (21, 15870), (27, 15972), (29, 15990), (31, 15996), (38, 16032), (39, 16044), (45, 16095),

Gene: CherryTomatoes_85 Start: 32872, Stop: 33231, Start Num: 15
Candidate Starts for CherryTomatoes_85:
(Start: 14 @32869 has 1 MA's), (Start: 15 @32872 has 7 MA's), (23, 33001), (26, 33028), (44, 33148), (46, 33190),

Gene: CloverMinnie_19 Start: 15650, Stop: 15961, Start Num: 16
Candidate Starts for CloverMinnie_19:
(Start: 16 @15650 has 122 MA's), (26, 15803), (39, 15866),

Gene: Coffee_20 Start: 17271, Stop: 17603, Start Num: 16
Candidate Starts for Coffee_20:
(7, 17169), (11, 17217), (12, 17223), (Start: 16 @17271 has 122 MA's), (22, 17337), (28, 17442), (30, 17457), (39, 17508), (45, 17559), (47, 17589),

Gene: Coldpizza_19 Start: 16233, Stop: 16544, Start Num: 16
Candidate Starts for Coldpizza_19:
(Start: 16 @16233 has 122 MA's), (17, 16248), (24, 16374), (26, 16386), (35, 16425), (39, 16449), (50, 16539),

Gene: Compostia_21 Start: 16370, Stop: 16702, Start Num: 16
Candidate Starts for Compostia_21:
(Start: 16 @16370 has 122 MA's), (20, 16427), (21, 16433), (27, 16535), (29, 16553), (31, 16559), (38, 16595), (39, 16607), (45, 16658),

Gene: Corofin_20 Start: 15962, Stop: 16294, Start Num: 16
Candidate Starts for Corofin_20:
(Start: 16 @15962 has 122 MA's), (20, 16019), (21, 16025), (27, 16127), (29, 16145), (31, 16151), (38, 16187), (39, 16199), (45, 16250),

Gene: D12_14 Start: 14972, Stop: 15304, Start Num: 16
Candidate Starts for D12_14:
(3, 14702), (5, 14801), (6, 14828), (9, 14894), (11, 14918), (12, 14924), (Start: 16 @14972 has 122 MA's), (22, 15038), (24, 15113), (38, 15197), (39, 15209), (41, 15221), (49, 15299),

Gene: Daisy_20 Start: 15958, Stop: 16290, Start Num: 16
Candidate Starts for Daisy_20:
(Start: 16 @15958 has 122 MA's), (20, 16015), (21, 16021), (27, 16123), (29, 16141), (31, 16147), (38, 16183), (39, 16195), (45, 16246),

Gene: Deenasa_20 Start: 16700, Stop: 17032, Start Num: 16
Candidate Starts for Deenasa_20:
(Start: 16 @16700 has 122 MA's), (20, 16757), (21, 16763), (27, 16865), (29, 16883), (31, 16889), (38, 16925), (39, 16937), (45, 16988),

Gene: Devonte_20 Start: 15937, Stop: 16269, Start Num: 16
Candidate Starts for Devonte_20:

(Start: 16 @15937 has 122 MA's), (20, 15994), (21, 16000), (27, 16102), (29, 16120), (31, 16126), (38, 16162), (39, 16174), (45, 16225),

Gene: Dori_16 Start: 12908, Stop: 13240, Start Num: 16
Candidate Starts for Dori_16:
(Start: 16 @12908 has 122 MA's), (17, 12923), (24, 13049), (34, 13118), (35, 13121), (39, 13145), (43, 13175), (47, 13226), (49, 13235),

Gene: Eaglehorse_20 Start: 17178, Stop: 17510, Start Num: 16
Candidate Starts for Eaglehorse_20:
(7, 17076), (11, 17124), (12, 17130), (Start: 16 @17178 has 122 MA's), (22, 17244), (28, 17349), (30, 17364), (35, 17391), (39, 17415), (45, 17466), (47, 17496),

Gene: Evaa_18 Start: 15556, Stop: 15870, Start Num: 15
Candidate Starts for Evaa_18:
(Start: 15 @15556 has 7 MA's), (26, 15712), (39, 15775), (50, 15865),

Gene: Faze9_20 Start: 17271, Stop: 17603, Start Num: 16
Candidate Starts for Faze9_20:
(7, 17169), (11, 17217), (12, 17223), (Start: 16 @17271 has 122 MA's), (22, 17337), (28, 17442), (30, 17457), (35, 17484), (39, 17508), (45, 17559), (47, 17589),

Gene: FelixTres_19 Start: 15713, Stop: 16024, Start Num: 16
Candidate Starts for FelixTres_19:
(Start: 16 @15713 has 122 MA's), (26, 15866), (39, 15929), (50, 16019),

Gene: ForDig_15 Start: 14551, Stop: 14883, Start Num: 16
Candidate Starts for ForDig_15:
(9, 14470), (Start: 16 @14551 has 122 MA's), (18, 14575), (19, 14605), (24, 14692), (29, 14734), (34, 14761), (37, 14773), (40, 14797), (41, 14800),

Gene: FrenchFry_20 Start: 17274, Stop: 17606, Start Num: 16
Candidate Starts for FrenchFry_20:
(7, 17172), (11, 17220), (12, 17226), (Start: 16 @17274 has 122 MA's), (22, 17340), (28, 17445), (30, 17460), (35, 17487), (39, 17511), (45, 17562), (47, 17592),

Gene: Fresco_17 Start: 14287, Stop: 14598, Start Num: 16
Candidate Starts for Fresco_17:
(13, 14260), (Start: 16 @14287 has 122 MA's), (24, 14428), (26, 14440), (39, 14503),

Gene: Gadjet_21 Start: 15941, Stop: 16273, Start Num: 16
Candidate Starts for Gadjet_21:
(Start: 16 @15941 has 122 MA's), (20, 15998), (21, 16004), (27, 16106), (29, 16124), (31, 16130), (38, 16166), (39, 16178), (45, 16229),

Gene: Gervas_20 Start: 15920, Stop: 16252, Start Num: 16
Candidate Starts for Gervas_20:
(Start: 16 @15920 has 122 MA's), (20, 15977), (21, 15983), (27, 16085), (29, 16103), (31, 16109), (38, 16145), (39, 16157), (45, 16208),

Gene: Glass_20 Start: 17274, Stop: 17606, Start Num: 16
Candidate Starts for Glass_20:

(7, 17172), (11, 17220), (12, 17226), (Start: 16 @17274 has 122 MA's), (22, 17340), (28, 17445), (30, 17460), (35, 17487), (39, 17511), (45, 17562), (47, 17592),

Gene: GlenHope_21 Start: 15927, Stop: 16259, Start Num: 16
Candidate Starts for GlenHope_21:
(Start: 16 @15927 has 122 MA's), (20, 15984), (21, 15990), (27, 16092), (29, 16110), (31, 16116), (38, 16152), (39, 16164), (45, 16215),

Gene: Glubnar_21 Start: 15942, Stop: 16274, Start Num: 16
Candidate Starts for Glubnar_21:
(Start: 16 @15942 has 122 MA's), (20, 15999), (21, 16005), (27, 16107), (29, 16125), (31, 16131), (38, 16167), (39, 16179), (45, 16230),

Gene: GodPhather_15 Start: 15237, Stop: 15569, Start Num: 16
Candidate Starts for GodPhather_15:
(Start: 16 @15237 has 122 MA's), (22, 15303), (24, 15378), (38, 15462), (39, 15474), (41, 15486), (49, 15564),

Gene: Godines_20 Start: 17169, Stop: 17501, Start Num: 16
Candidate Starts for Godines_20:
(Start: 16 @17169 has 122 MA's), (22, 17235), (28, 17340), (30, 17355), (39, 17406), (42, 17421), (45, 17457), (47, 17487),

Gene: Halfpint_19 Start: 15762, Stop: 16094, Start Num: 16
Candidate Starts for Halfpint_19:
(Start: 16 @15762 has 122 MA's), (20, 15819), (21, 15825), (27, 15927), (29, 15945), (31, 15951), (38, 15987), (39, 15999), (45, 16050),

Gene: HarveySr_20 Start: 15914, Stop: 16246, Start Num: 16
Candidate Starts for HarveySr_20:
(Start: 16 @15914 has 122 MA's), (20, 15971), (21, 15977), (27, 16079), (29, 16097), (31, 16103), (38, 16139), (39, 16151), (45, 16202),

Gene: Hashim76_22 Start: 15489, Stop: 15821, Start Num: 16
Candidate Starts for Hashim76_22:
(6, 15345), (Start: 16 @15489 has 122 MA's), (18, 15513), (28, 15660), (29, 15672), (40, 15735),

Gene: Heathcliff_20 Start: 15899, Stop: 16231, Start Num: 16
Candidate Starts for Heathcliff_20:
(Start: 16 @15899 has 122 MA's), (20, 15956), (21, 15962), (27, 16064), (29, 16082), (31, 16088), (38, 16124), (39, 16136), (45, 16187),

Gene: Hedgerow_20 Start: 17256, Stop: 17588, Start Num: 16
Candidate Starts for Hedgerow_20:
(7, 17154), (11, 17202), (12, 17208), (Start: 16 @17256 has 122 MA's), (22, 17322), (28, 17427), (30, 17442), (35, 17469), (39, 17493), (45, 17544), (47, 17574),

Gene: Holeinone_20 Start: 17156, Stop: 17488, Start Num: 16
Candidate Starts for Holeinone_20:
(7, 17054), (11, 17102), (12, 17108), (Start: 16 @17156 has 122 MA's), (22, 17222), (28, 17327), (30, 17342), (35, 17369), (39, 17393), (45, 17444), (47, 17474),

Gene: Hosp_013 Start: 12766, Stop: 13098, Start Num: 16

Candidate Starts for Hosp_013:
(Start: 16 @12766 has 122 MA's), (18, 12790), (19, 12820), (29, 12949),

Gene: Imvubu_14 Start: 13522, Stop: 13854, Start Num: 16
Candidate Starts for Imvubu_14:
(Start: 16 @13522 has 122 MA's), (17, 13537), (18, 13546), (19, 13576), (28, 13693), (29, 13705), (37, 13744), (40, 13768), (41, 13771), (47, 13840),

Gene: ItsyBitsy1_20 Start: 17148, Stop: 17480, Start Num: 16
Candidate Starts for ItsyBitsy1_20:
(7, 17046), (11, 17094), (12, 17100), (Start: 16 @17148 has 122 MA's), (22, 17214), (28, 17319), (30, 17334), (35, 17361), (39, 17385), (45, 17436), (47, 17466),

Gene: Jackstina_19 Start: 15863, Stop: 16195, Start Num: 16
Candidate Starts for Jackstina_19:
(Start: 16 @15863 has 122 MA's), (20, 15920), (21, 15926), (27, 16028), (29, 16046), (31, 16052), (38, 16088), (39, 16100), (45, 16151),

Gene: Jeon_14 Start: 14979, Stop: 15311, Start Num: 16
Candidate Starts for Jeon_14:
(3, 14709), (5, 14808), (6, 14835), (9, 14901), (11, 14925), (12, 14931), (Start: 16 @14979 has 122 MA's), (22, 15045), (24, 15120), (38, 15204), (39, 15216), (41, 15228), (49, 15306),

Gene: Jolie1_015 Start: 14536, Stop: 14868, Start Num: 16
Candidate Starts for Jolie1_015:
(6, 14389), (Start: 16 @14536 has 122 MA's), (18, 14560), (19, 14590), (24, 14677), (34, 14746), (47, 14854),

Gene: Kaleb_20 Start: 17274, Stop: 17606, Start Num: 16
Candidate Starts for Kaleb_20:
(7, 17172), (11, 17220), (12, 17226), (Start: 16 @17274 has 122 MA's), (22, 17340), (28, 17445), (30, 17460), (35, 17487), (39, 17511), (45, 17562), (47, 17592),

Gene: Kamiyu_20 Start: 15908, Stop: 16240, Start Num: 16
Candidate Starts for Kamiyu_20:
(Start: 16 @15908 has 122 MA's), (20, 15965), (21, 15971), (27, 16073), (29, 16091), (31, 16097), (38, 16133), (39, 16145), (45, 16196),

Gene: KayaCho_15 Start: 14554, Stop: 14886, Start Num: 16
Candidate Starts for KayaCho_15:
(6, 14407), (8, 14467), (10, 14491), (Start: 16 @14554 has 122 MA's), (18, 14578), (19, 14608), (29, 14737), (36, 14773), (41, 14803),

Gene: Kheth_20 Start: 17157, Stop: 17489, Start Num: 16
Candidate Starts for Kheth_20:
(7, 17055), (11, 17103), (12, 17109), (Start: 16 @17157 has 122 MA's), (22, 17223), (28, 17328), (30, 17343), (35, 17370), (39, 17394), (45, 17445), (47, 17475),

Gene: Kolhan_20 Start: 17154, Stop: 17486, Start Num: 16
Candidate Starts for Kolhan_20:
(7, 17052), (11, 17100), (12, 17106), (Start: 16 @17154 has 122 MA's), (22, 17220), (28, 17325), (30, 17340), (35, 17367), (39, 17391), (45, 17442), (47, 17472),

Gene: Kronus_19 Start: 16520, Stop: 16852, Start Num: 16
Candidate Starts for Kronus_19:
(Start: 16 @16520 has 122 MA's), (20, 16577), (21, 16583), (27, 16685), (29, 16703), (31, 16709), (38, 16745), (39, 16757), (45, 16808),

Gene: Lars_20 Start: 17274, Stop: 17606, Start Num: 16
Candidate Starts for Lars_20:
(7, 17172), (11, 17220), (12, 17226), (Start: 16 @17274 has 122 MA's), (22, 17340), (28, 17445), (30, 17460), (35, 17487), (39, 17511), (45, 17562), (47, 17592),

Gene: Laurie_20 Start: 17152, Stop: 17484, Start Num: 16
Candidate Starts for Laurie_20:
(11, 17098), (12, 17104), (Start: 16 @17152 has 122 MA's), (22, 17218), (28, 17323), (30, 17338), (35, 17365), (39, 17389), (45, 17440), (47, 17470),

Gene: Lephleur_20 Start: 17154, Stop: 17486, Start Num: 16
Candidate Starts for Lephleur_20:
(7, 17052), (11, 17100), (12, 17106), (Start: 16 @17154 has 122 MA's), (22, 17220), (28, 17325), (30, 17340), (35, 17367), (39, 17391), (45, 17442), (47, 17472),

Gene: LestyG_20 Start: 15941, Stop: 16273, Start Num: 16
Candidate Starts for LestyG_20:
(Start: 16 @15941 has 122 MA's), (20, 15998), (21, 16004), (27, 16106), (29, 16124), (31, 16130), (38, 16166), (39, 16178), (45, 16229),

Gene: Ligma_17 Start: 14287, Stop: 14598, Start Num: 16
Candidate Starts for Ligma_17:
(13, 14260), (Start: 16 @14287 has 122 MA's), (24, 14428), (26, 14440), (39, 14503),

Gene: LilSmirk_20 Start: 17154, Stop: 17486, Start Num: 16
Candidate Starts for LilSmirk_20:
(7, 17052), (11, 17100), (12, 17106), (Start: 16 @17154 has 122 MA's), (22, 17220), (28, 17325), (30, 17340), (35, 17367), (39, 17391), (45, 17442), (47, 17472),

Gene: LittleMinkey_23 Start: 15674, Stop: 16006, Start Num: 16
Candidate Starts for LittleMinkey_23:
(Start: 16 @15674 has 122 MA's), (18, 15698), (20, 15731), (28, 15845), (29, 15857), (39, 15911),

Gene: LittleMunchkin_18 Start: 15707, Stop: 16021, Start Num: 15
Candidate Starts for LittleMunchkin_18:
(Start: 15 @15707 has 7 MA's), (26, 15863), (33, 15896), (39, 15926),

Gene: LizLemon_20 Start: 17274, Stop: 17606, Start Num: 16
Candidate Starts for LizLemon_20:
(7, 17172), (11, 17220), (12, 17226), (Start: 16 @17274 has 122 MA's), (22, 17340), (28, 17445), (30, 17460), (35, 17487), (39, 17511), (40, 17520), (45, 17562), (47, 17592),

Gene: MakoManhole_19 Start: 15728, Stop: 16039, Start Num: 16
Candidate Starts for MakoManhole_19:
(Start: 16 @15728 has 122 MA's), (26, 15881), (39, 15944),

Gene: Mao1_15 Start: 13304, Stop: 13636, Start Num: 16
Candidate Starts for Mao1_15:

(Start: 16 @13304 has 122 MA's), (17, 13319), (24, 13445), (34, 13514), (35, 13517), (39, 13541), (43, 13571), (47, 13622), (49, 13631),

Gene: Mariokart_17 Start: 14196, Stop: 14513, Start Num: 14
Candidate Starts for Mariokart_17:
(1, 13734), (4, 14004), (Start: 14 @14196 has 1 MA's), (26, 14355), (39, 14418),

Gene: Marley1013_20 Start: 16721, Stop: 17053, Start Num: 16
Candidate Starts for Marley1013_20:
(Start: 16 @16721 has 122 MA's), (20, 16778), (21, 16784), (27, 16886), (29, 16904), (31, 16910), (38, 16946), (39, 16958), (45, 17009),

Gene: Marlia_20 Start: 15923, Stop: 16255, Start Num: 16
Candidate Starts for Marlia_20:
(Start: 16 @15923 has 122 MA's), (20, 15980), (21, 15986), (27, 16088), (29, 16106), (31, 16112), (38, 16148), (39, 16160), (45, 16211),

Gene: Mask_16 Start: 13305, Stop: 13637, Start Num: 16
Candidate Starts for Mask_16:
(Start: 16 @13305 has 122 MA's), (17, 13320), (24, 13446), (34, 13515), (35, 13518), (39, 13542), (43, 13572), (47, 13623), (49, 13632),

Gene: MasterPo_20 Start: 17154, Stop: 17486, Start Num: 16
Candidate Starts for MasterPo_20:
(7, 17052), (11, 17100), (12, 17106), (Start: 16 @17154 has 122 MA's), (22, 17220), (28, 17325), (30, 17340), (35, 17367), (39, 17391), (40, 17400), (45, 17442), (47, 17472),

Gene: Megabear_14 Start: 14922, Stop: 15254, Start Num: 16
Candidate Starts for Megabear_14:
(3, 14652), (5, 14751), (6, 14778), (9, 14844), (11, 14868), (12, 14874), (Start: 16 @14922 has 122 MA's), (22, 14988), (24, 15063), (38, 15147), (39, 15159), (41, 15171), (49, 15249),

Gene: MmasiCarm_20 Start: 15934, Stop: 16266, Start Num: 16
Candidate Starts for MmasiCarm_20:
(Start: 16 @15934 has 122 MA's), (20, 15991), (21, 15997), (27, 16099), (29, 16117), (31, 16123), (38, 16159), (39, 16171), (45, 16222),

Gene: Mortcellus_19 Start: 16575, Stop: 16907, Start Num: 16
Candidate Starts for Mortcellus_19:
(Start: 16 @16575 has 122 MA's), (20, 16632), (21, 16638), (27, 16740), (29, 16758), (31, 16764), (38, 16800), (39, 16812), (45, 16863),

Gene: Morty007_20 Start: 16721, Stop: 17053, Start Num: 16
Candidate Starts for Morty007_20:
(Start: 16 @16721 has 122 MA's), (20, 16778), (21, 16784), (27, 16886), (29, 16904), (31, 16910), (38, 16946), (39, 16958), (45, 17009),

Gene: MossRose_19 Start: 15707, Stop: 16018, Start Num: 16
Candidate Starts for MossRose_19:
(Start: 16 @15707 has 122 MA's), (26, 15860), (39, 15923), (50, 16013),

Gene: Mulaychimus_20 Start: 15914, Stop: 16246, Start Num: 16
Candidate Starts for Mulaychimus_20:

(Start: 16 @15914 has 122 MA's), (20, 15971), (21, 15977), (27, 16079), (29, 16097), (31, 16103), (38, 16139), (39, 16151), (45, 16202),

Gene: NHagos_17 Start: 14186, Stop: 14497, Start Num: 16
Candidate Starts for NHagos_17:
(11, 14129), (13, 14159), (Start: 16 @14186 has 122 MA's), (26, 14339), (35, 14378), (39, 14402), (50, 14492),

Gene: Neos5_20 Start: 16729, Stop: 17061, Start Num: 16
Candidate Starts for Neos5_20:
(Start: 16 @16729 has 122 MA's), (20, 16786), (21, 16792), (27, 16894), (29, 16912), (31, 16918), (38, 16954), (39, 16966), (45, 17017),

Gene: Nozo_20 Start: 16699, Stop: 17031, Start Num: 16
Candidate Starts for Nozo_20:
(Start: 16 @16699 has 122 MA's), (20, 16756), (21, 16762), (27, 16864), (29, 16882), (31, 16888), (38, 16924), (39, 16936), (45, 16987),

Gene: Obutu_20 Start: 15932, Stop: 16264, Start Num: 16
Candidate Starts for Obutu_20:
(Start: 16 @15932 has 122 MA's), (20, 15989), (21, 15995), (27, 16097), (29, 16115), (31, 16121), (38, 16157), (39, 16169), (45, 16220),

Gene: Olivio_19 Start: 15786, Stop: 16118, Start Num: 16
Candidate Starts for Olivio_19:
(Start: 16 @15786 has 122 MA's), (20, 15843), (21, 15849), (27, 15951), (29, 15969), (31, 15975), (38, 16011), (39, 16023), (45, 16074),

Gene: Opia_20 Start: 17154, Stop: 17486, Start Num: 16
Candidate Starts for Opia_20:
(7, 17052), (11, 17100), (12, 17106), (Start: 16 @17154 has 122 MA's), (22, 17220), (28, 17325), (30, 17340), (35, 17367), (39, 17391), (45, 17442), (47, 17472),

Gene: OrangeOswald_20 Start: 15937, Stop: 16269, Start Num: 16
Candidate Starts for OrangeOswald_20:
(Start: 16 @15937 has 122 MA's), (20, 15994), (21, 16000), (27, 16102), (29, 16120), (31, 16126), (38, 16162), (39, 16174), (45, 16225),

Gene: PR_14 Start: 14949, Stop: 15281, Start Num: 16
Candidate Starts for PR_14:
(3, 14679), (5, 14778), (6, 14805), (9, 14871), (11, 14895), (12, 14901), (Start: 16 @14949 has 122 MA's), (22, 15015), (24, 15090), (38, 15174), (39, 15186), (41, 15198), (49, 15276),

Gene: Phaedrus_19 Start: 15855, Stop: 16187, Start Num: 16
Candidate Starts for Phaedrus_19:
(Start: 16 @15855 has 122 MA's), (20, 15912), (21, 15918), (27, 16020), (29, 16038), (31, 16044), (38, 16080), (39, 16092), (45, 16143),

Gene: Phantasmagoria_20 Start: 17154, Stop: 17486, Start Num: 16
Candidate Starts for Phantasmagoria_20:
(7, 17052), (11, 17100), (12, 17106), (Start: 16 @17154 has 122 MA's), (22, 17220), (28, 17325), (30, 17340), (39, 17391), (45, 17442), (47, 17472),

Gene: Phayeta_20 Start: 15813, Stop: 16145, Start Num: 16
Candidate Starts for Phayeta_20:
(Start: 16 @15813 has 122 MA's), (20, 15870), (21, 15876), (27, 15978), (29, 15996), (31, 16002), (38, 16038), (39, 16050), (45, 16101),

Gene: Philly_19 Start: 15803, Stop: 16135, Start Num: 16
Candidate Starts for Philly_19:
(Start: 16 @15803 has 122 MA's), (20, 15860), (21, 15866), (27, 15968), (29, 15986), (31, 15992), (38, 16028), (39, 16040), (45, 16091),

Gene: Phlyer_20 Start: 16672, Stop: 17004, Start Num: 16
Candidate Starts for Phlyer_20:
(Start: 16 @16672 has 122 MA's), (20, 16729), (21, 16735), (27, 16837), (29, 16855), (31, 16861), (38, 16897), (39, 16909), (45, 16960),

Gene: Pipefish_20 Start: 16821, Stop: 17153, Start Num: 16
Candidate Starts for Pipefish_20:
(Start: 16 @16821 has 122 MA's), (20, 16878), (21, 16884), (27, 16986), (29, 17004), (31, 17010), (38, 17046), (39, 17058), (45, 17109),

Gene: PrinceCharming_20 Start: 17274, Stop: 17606, Start Num: 16
Candidate Starts for PrinceCharming_20:
(7, 17172), (11, 17220), (12, 17226), (Start: 16 @17274 has 122 MA's), (22, 17340), (28, 17445), (30, 17460), (35, 17487), (39, 17511), (45, 17562), (47, 17592),

Gene: Pupper_85 Start: 33056, Stop: 33415, Start Num: 15
Candidate Starts for Pupper_85:
(Start: 14 @33053 has 1 MA's), (Start: 15 @33056 has 7 MA's), (23, 33185), (26, 33212), (44, 33332), (46, 33374),

Gene: Quesadilla_20 Start: 17337, Stop: 17669, Start Num: 16
Candidate Starts for Quesadilla_20:
(Start: 16 @17337 has 122 MA's), (18, 17361), (28, 17508), (29, 17520), (40, 17583), (41, 17586),

Gene: Qyrzula_19 Start: 17244, Stop: 17576, Start Num: 16
Candidate Starts for Qyrzula_19:
(7, 17142), (11, 17190), (12, 17196), (Start: 16 @17244 has 122 MA's), (22, 17310), (28, 17415), (30, 17430), (39, 17481), (45, 17532), (47, 17562),

Gene: RagingRooster_20 Start: 15938, Stop: 16270, Start Num: 16
Candidate Starts for RagingRooster_20:
(Start: 16 @15938 has 122 MA's), (20, 15995), (21, 16001), (27, 16103), (29, 16121), (31, 16127), (38, 16163), (39, 16175), (45, 16226),

Gene: Rhinoforte_20 Start: 17271, Stop: 17603, Start Num: 16
Candidate Starts for Rhinoforte_20:
(7, 17169), (11, 17217), (12, 17223), (Start: 16 @17271 has 122 MA's), (22, 17337), (28, 17442), (30, 17457), (35, 17484), (39, 17508), (45, 17559), (47, 17589),

Gene: Rita1961_20 Start: 15933, Stop: 16265, Start Num: 16
Candidate Starts for Rita1961_20:
(Start: 16 @15933 has 122 MA's), (20, 15990), (21, 15996), (27, 16098), (29, 16116), (31, 16122), (38, 16158), (39, 16170), (45, 16221),

Gene: RomaT_20 Start: 16719, Stop: 17051, Start Num: 16
Candidate Starts for RomaT_20:
(Start: 16 @16719 has 122 MA's), (20, 16776), (21, 16782), (27, 16884), (29, 16902), (31, 16908), (38, 16944), (39, 16956), (45, 17007),

Gene: Rosebush_20 Start: 17271, Stop: 17603, Start Num: 16
Candidate Starts for Rosebush_20:
(7, 17169), (11, 17217), (12, 17223), (Start: 16 @17271 has 122 MA's), (22, 17337), (28, 17442), (30, 17457), (39, 17508), (45, 17559), (47, 17589),

Gene: SCentae_83 Start: 32730, Stop: 33089, Start Num: 15
Candidate Starts for SCentae_83:
(Start: 14 @32727 has 1 MA's), (Start: 15 @32730 has 7 MA's), (23, 32859), (26, 32886), (44, 33006), (46, 33048),

Gene: Sabella_20 Start: 17157, Stop: 17489, Start Num: 16
Candidate Starts for Sabella_20:
(7, 17055), (11, 17103), (12, 17109), (Start: 16 @17157 has 122 MA's), (22, 17223), (28, 17328), (30, 17343), (35, 17370), (39, 17394), (45, 17445), (47, 17475),

Gene: Sejanus_16 Start: 14238, Stop: 14570, Start Num: 16
Candidate Starts for Sejanus_16:
(Start: 16 @14238 has 122 MA's), (17, 14253), (24, 14379), (32, 14442), (34, 14448), (35, 14451), (39, 14475), (43, 14505), (47, 14556), (49, 14565),

Gene: Shatter_17 Start: 14287, Stop: 14598, Start Num: 16
Candidate Starts for Shatter_17:
(13, 14260), (Start: 16 @14287 has 122 MA's), (24, 14428), (26, 14440), (39, 14503),

Gene: Shenandoah_20 Start: 15916, Stop: 16248, Start Num: 16
Candidate Starts for Shenandoah_20:
(Start: 16 @15916 has 122 MA's), (20, 15973), (21, 15979), (27, 16081), (29, 16099), (31, 16105), (38, 16141), (39, 16153), (45, 16204),

Gene: Sisko_17 Start: 14609, Stop: 14920, Start Num: 16
Candidate Starts for Sisko_17:
(Start: 16 @14609 has 122 MA's), (26, 14762),

Gene: Skog_148 Start: 62143, Stop: 62505, Start Num: 15
Candidate Starts for Skog_148:
(Start: 15 @62143 has 7 MA's), (20, 62203), (26, 62299), (44, 62419), (46, 62461), (48, 62467),

Gene: SlippinJimmy_20 Start: 16702, Stop: 17034, Start Num: 16
Candidate Starts for SlippinJimmy_20:
(Start: 16 @16702 has 122 MA's), (20, 16759), (21, 16765), (27, 16867), (29, 16885), (31, 16891), (38, 16927), (39, 16939), (45, 16990),

Gene: Sour_20 Start: 16058, Stop: 16393, Start Num: 15
Candidate Starts for Sour_20:
(Start: 15 @16058 has 7 MA's), (24, 16202), (25, 16211), (29, 16244), (44, 16334),

Gene: SwainyDoc_20 Start: 15935, Stop: 16267, Start Num: 16

Candidate Starts for SwainyDoc_20:
(Start: 16 @15935 has 122 MA's), (20, 15992), (21, 15998), (27, 16100), (29, 16118), (31, 16124), (38, 16160), (39, 16172), (45, 16223),

Gene: SynergyX_20 Start: 15938, Stop: 16270, Start Num: 16
Candidate Starts for SynergyX_20:
(Start: 16 @15938 has 122 MA's), (20, 15995), (21, 16001), (27, 16103), (29, 16121), (31, 16127), (38, 16163), (39, 16175), (45, 16226),

Gene: TA17A_20 Start: 17154, Stop: 17486, Start Num: 16
Candidate Starts for TA17A_20:
(7, 17052), (11, 17100), (12, 17106), (Start: 16 @17154 has 122 MA's), (22, 17220), (28, 17325), (30, 17340), (35, 17367), (39, 17391), (45, 17442), (47, 17472),

Gene: Taptic_14 Start: 14922, Stop: 15254, Start Num: 16
Candidate Starts for Taptic_14:
(3, 14652), (5, 14751), (6, 14778), (9, 14844), (11, 14868), (12, 14874), (Start: 16 @14922 has 122 MA's), (22, 14988), (24, 15063), (38, 15147), (39, 15159), (41, 15171), (49, 15249),

Gene: Tinciduntsolum_21 Start: 17273, Stop: 17605, Start Num: 16
Candidate Starts for Tinciduntsolum_21:
(7, 17171), (11, 17219), (12, 17225), (Start: 16 @17273 has 122 MA's), (22, 17339), (28, 17444), (30, 17459), (35, 17486), (39, 17510), (45, 17561), (47, 17591),

Gene: TinyTerror_20 Start: 15937, Stop: 16269, Start Num: 16
Candidate Starts for TinyTerror_20:
(Start: 16 @15937 has 122 MA's), (20, 15994), (21, 16000), (27, 16102), (29, 16120), (31, 16126), (38, 16162), (39, 16174), (45, 16225),

Gene: TraderJ_19 Start: 15710, Stop: 16021, Start Num: 16
Candidate Starts for TraderJ_19:
(Start: 16 @15710 has 122 MA's), (26, 15863), (39, 15926), (50, 16016),

Gene: Tres_20 Start: 17154, Stop: 17486, Start Num: 16
Candidate Starts for Tres_20:
(7, 17052), (11, 17100), (12, 17106), (Start: 16 @17154 has 122 MA's), (22, 17220), (28, 17325), (30, 17340), (35, 17367), (39, 17391), (45, 17442), (47, 17472),

Gene: Tydolla_20 Start: 16675, Stop: 17007, Start Num: 16
Candidate Starts for Tydolla_20:
(Start: 16 @16675 has 122 MA's), (20, 16732), (21, 16738), (27, 16840), (29, 16858), (31, 16864), (38, 16900), (39, 16912), (45, 16963),

Gene: West99_20 Start: 17274, Stop: 17606, Start Num: 16
Candidate Starts for West99_20:
(7, 17172), (11, 17220), (12, 17226), (Start: 16 @17274 has 122 MA's), (22, 17340), (28, 17445), (30, 17460), (35, 17487), (39, 17511), (45, 17562), (47, 17592),

Gene: Wooper_19 Start: 15716, Stop: 16027, Start Num: 16
Candidate Starts for Wooper_19:
(2, 15266), (11, 15659), (Start: 16 @15716 has 122 MA's), (26, 15869), (39, 15932), (50, 16022),

Gene: Yago84_17 Start: 14618, Stop: 14929, Start Num: 16

Candidate Starts for Yago84_17:
(Start: 16 @14618 has 122 MA's), (26, 14771),

Gene: Yahalom_20 Start: 15949, Stop: 16281, Start Num: 16
Candidate Starts for Yahalom_20:
(Start: 16 @15949 has 122 MA's), (20, 16006), (21, 16012), (27, 16114), (29, 16132), (31, 16138), (38, 16174), (39, 16186), (45, 16237),

Gene: Yeshua_19 Start: 15693, Stop: 16004, Start Num: 16
Candidate Starts for Yeshua_19:
(2, 15243), (11, 15636), (Start: 16 @15693 has 122 MA's), (26, 15846), (39, 15909), (50, 15999),

Gene: Yinz_20 Start: 15976, Stop: 16308, Start Num: 16
Candidate Starts for Yinz_20:
(Start: 16 @15976 has 122 MA's), (20, 16033), (21, 16039), (27, 16141), (29, 16159), (31, 16165), (38, 16201), (39, 16213), (45, 16264),

Gene: Zenteno07_22 Start: 15443, Stop: 15775, Start Num: 16
Candidate Starts for Zenteno07_22:
(6, 15299), (Start: 16 @15443 has 122 MA's), (18, 15467), (28, 15614), (29, 15626), (40, 15689),