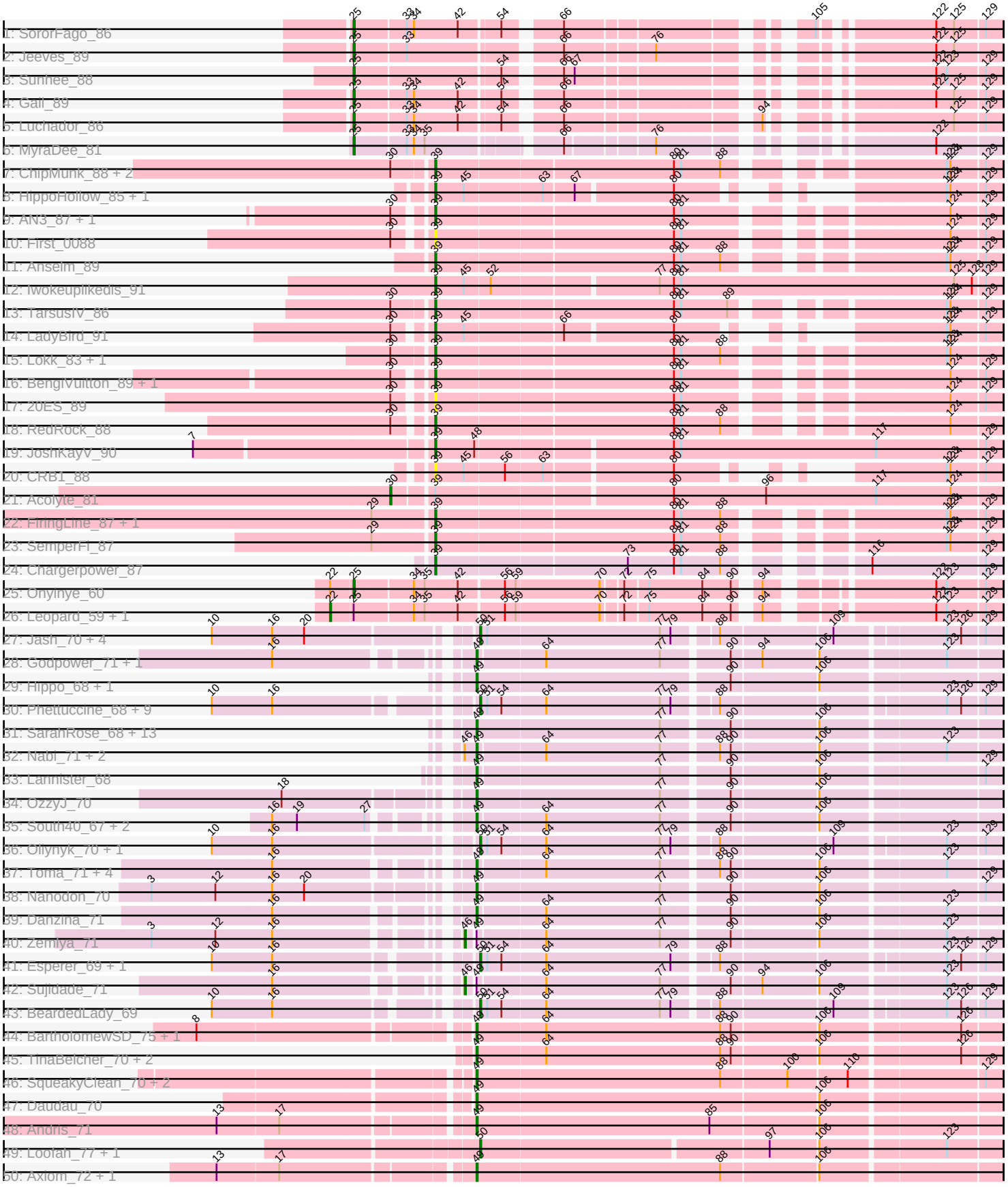
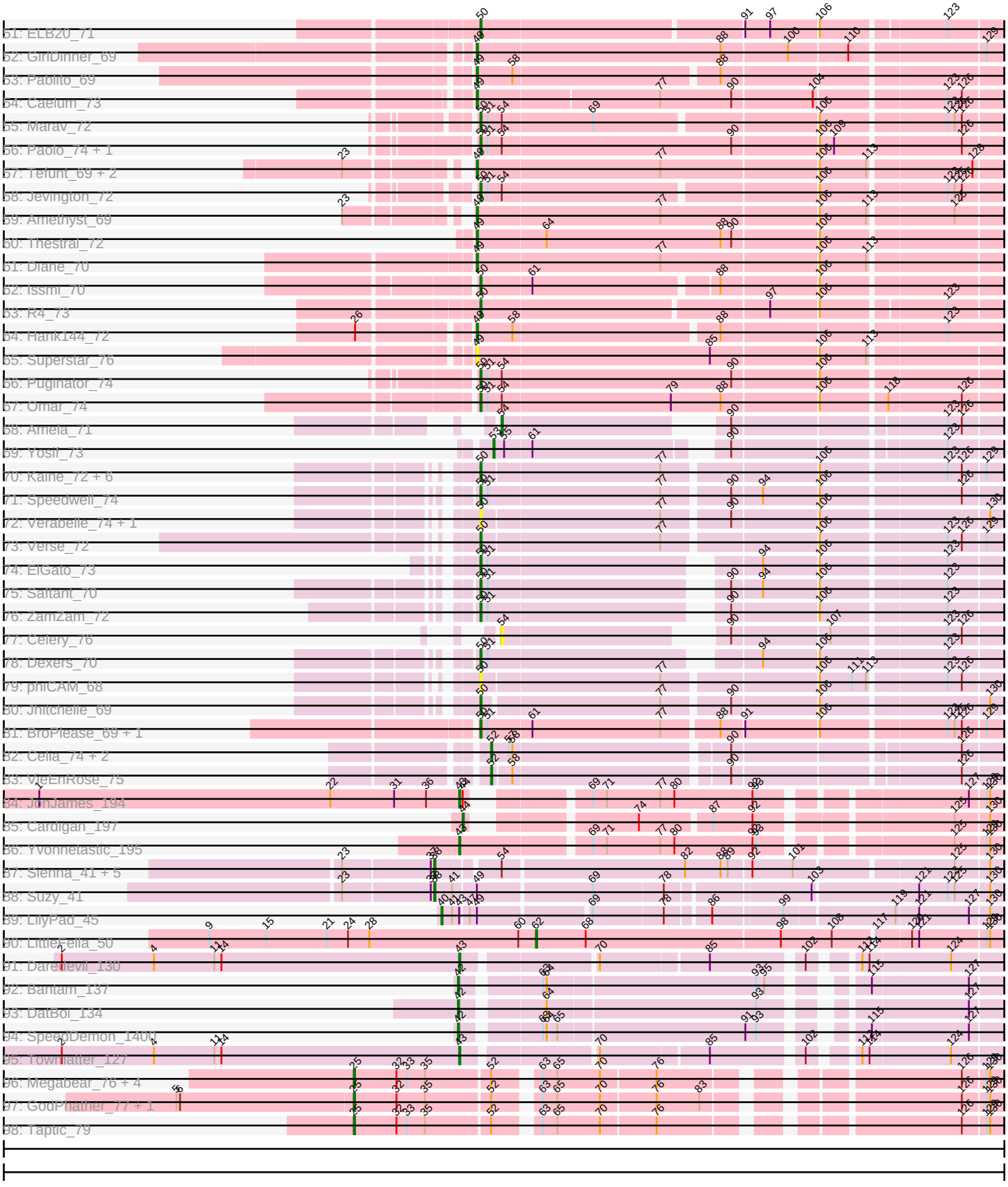
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1: SororFago_86
2: Jeeves_89
3: Sunnee_88
4: Gail_89
5: Luchador_86
6: MyraDee_81
7: ChipMunk_88 + 2
8: HippoHollow_85 + 1
9: AN3_87 + 1
10: First_0088
11: Anselm_89
12: Iwokeuplikedis_91
13: TarsusIV_86
14: LadyBird_91
15: Lokk_83 + 1
16: BengiVuitton_89 + 1
17: 20ES_89
18: RedRock_88
19: JoshKayV_90
20: CRB1_88
21: Acolyte_81
22: FiringLine_87 + 1
23: SemperFi_87
24: Chargerpower_87
25: Onyinye_60
26: Leopard_59 + 1
27: Jash_70 + 4
28: Godpower_71 + 1
29: Hippo_68 + 1
30: Phettuccine_68 + 9
31: SarahRose_68 + 13
32: Nabi_71 + 2
33: Lannister_68
34: OzzyJ_70
35: South40_67 + 2
36: Ollynyk_70 + 1
37: Toma_71 + 4
38: Nanodon_70
39: Danzina_71
40: Zemlya_71
41: Esperer_69 + 1
42: Sujidade_71
43: BeardedLady_69
44: BartholomewSD_75 + 1
45: TinaBelcher_70 + 2
46: SqueakyClean_70 + 2
47: Daudau_70
48: Andris_71
49: Loofah_77 + 1
50: Axiom_72 + 1

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51: ELB20_71
52: GinDinner_69
53: Pablito_69
54: Caelum_73
55: Marav_72
56: Paolo_74 + 1
57: Telunt_69 + 2
58: Jevington_72
59: Amethyst_69
60: Thestral_72
61: Diane_70
62: Issmi_70
63: R4_73
64: Hank144_72
65: Superstar_76
66: Puginator_74
67: Omar_74
68: Amela_71
69: Yosif_73
70: Kaine_72 + 6
71: Speedwell_74
72: Verabelle_74 + 1
73: Verse_72
74: ElGato_73
75: Saltant_70
76: ZamZam_72
77: Celery_76
78: Dexers_70
79: phiCAM_68
80: Jhitchelle_69
81: BroPlease_69 + 1
82: Celia_74 + 2
83: VieEnRose_75
84: JonJames_194
85: Cardigan_197
86: Yvonnetastic_195
87: Sienna_41 + 5
88: Suzy_41
89: LilyPad_45
90: LittleCella_50
91: Daredevil_130
92: Bantam_137
93: DatBoi_134
94: SpeedDemon_1400
95: Townhatter_127
96: Megabear_76 + 4
97: GodFather_77 + 1
98: Taptic_79

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 347304 Report

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

Pham number 347304 has 174 members, 9 are drafts.

Phages represented in each track:
- Track 1 : SororFago_86
- Track 2 : Jeeves_89
- Track 3 : Sunhee_88
- Track 4 : Gail_89
- Track 5 : Luchador_86
- Track 6 : MyraDee_81
- Track 7 : ChipMunk_88, KingCyrus_86, EvilGenius_87
- Track 8 : HippoHollow_85, LionsBait_85
- Track 9 : AN3_87, VA6_87
- Track 10 : First_0088
- Track 11 : Anselm_89
- Track 12 : Iwokeuplikedis_91
- Track 13 : TarsusIV_86
- Track 14 : LadyBird_91
- Track 15 : Lokk_83, BobSwaget_82
- Track 16 : BengiVuitton_89, Deloris_89
- Track 17 : 20ES_89
- Track 18 : RedRock_88
- Track 19 : JoshKayV_90
- Track 20 : CRB1_88
- Track 21 : Acolyte_81
- Track 22 : FiringLine_87, QueenBeesly_87
- Track 23 : SemperFi_87
- Track 24 : Chargerpower_87
- Track 25 : Onyinye_60
- Track 26 : Leopard_59, Aikoy_60
- Track 27 : Jash_70, Rusticus_70, Izzy_70, BryanRecycles_70, Eddasa_71
- Track 28 : Godpower_71, Lika_70
- Track 29 : Hippo_68, BarryBee_71
- Track 30 : Phettuccine_68, Hydra_71, Ozzie_68, Indigo_67, Bovely_68, Legacy_68, Unstoppable_68, Aaronocolus_68, Leviticus_69, SunsetPointe_68
- Track 31 : SarahRose_68, TagePhighter_70, Whatever_68, Werner_68, Triste_69, Emaanora_71, Asten_68, TuanPN_66, Yasdnil_68, Ejemplo_66, Dwayne_68, Chucky_68, Maneekul_68, Snorlax_68
- Track 32 : Nabi_71, Rana_71, Lorelei_70
- Track 33 : Lannister_68
- Track 34 : OzzyJ_70

• Track 35 : South40_67, Katalie_67, RedBear_68
• Track 36 : Oliynyk_70, EnochSoames_72
• Track 37 : Toma_71, Celeste_71, Goby_71, Brataylor_72, Dattran_72
• Track 38 : Nanodon_70
• Track 39 : Danzina_71
• Track 40 : Zemlya_71
• Track 41 : Esperer_69, Nerdos_67
• Track 42 : Sujidade_71
• Track 43 : BeardedLady_69
• Track 44 : BartholomewSD_75, Alvy_75
• Track 45 : TinaBelcher_70, Bowden_70, TrvxScott_69
• Track 46 : SqueakyClean_70, Janus_70, Animus_69
• Track 47 : Daudau_70
• Track 48 : Andris_71
• Track 49 : Loofah_77, Paedore_74
• Track 50 : Axiom_72, Triumph_72
• Track 51 : ELB20_71
• Track 52 : GirlDinner_69
• Track 53 : Pablito_69
• Track 54 : Caelum_73
• Track 55 : Marav_72
• Track 56 : Paolo_74, Zainub_74
• Track 57 : Tefunt_69, Nishikigoi_70, Haizum_69
• Track 58 : Jevington_72
• Track 59 : Amethyst_69
• Track 60 : Thestral_72
• Track 61 : Diane_70
• Track 62 : Issmi_70
• Track 63 : R4_73
• Track 64 : Hank144_72
• Track 65 : Superstar_76
• Track 66 : Puginator_74
• Track 67 : Omar_74
• Track 68 : Amela_71
• Track 69 : Yosif_73
• Track 70 : Kaine_72, Provolone_73, SunkenRoot_71, Sudan_72, Pavo_73, Conan_73, Alsaber_72
• Track 71 : Speedwell_74
• Track 72 : Verabelle_74, Vanseggelen_77
• Track 73 : Verse_72
• Track 74 : ElGato_73
• Track 75 : Saftant_70
• Track 76 : ZamZam_72
• Track 77 : Celery_76
• Track 78 : Dexers_70
• Track 79 : phiCAM_68
• Track 80 : Jhitchelle_69
• Track 81 : BroPlease_69, GreenWeasel_71
• Track 82 : Celia_74, Urza_76, Itza_77
• Track 83 : VieEnRose_75
• Track 84 : JonJames_194
• Track 85 : Cardigan_197
• Track 86 : Yvonnetastic_195

• Track 87 : Sienna_41, BiteSize_41, Terapin_42, Beyoncage_41, Djokovic_41, Madi_41
• Track 88 : Suzy_41
• Track 89 : LilyPad_45
• Track 90 : LittleFella_50
• Track 91 : Daredevil_130
• Track 92 : Bantam_137
• Track 93 : DatBoi_134
• Track 94 : SpeedDemon_1400
• Track 95 : Towmatter_127
• Track 96 : Megabear_76, D12_76, PR_77, Argie_79, Cepens_78
• Track 97 : GodPhather_77, Jeon_73
• Track 98 : Taptic_79

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

The start number called the most often in the published annotations is 49, it was called in 55 of the 165 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alvy_75, Amethyst_69, Andris_71, Animus_69, Asten_68, Axiom_72, BarryBee_71, BartholomewSD_75, Bowden_70, Brataylor_72, Caelum_73, Celeste_71, Chucky_68, Danzina_71, Dattran_72, Daudau_70, Diane_70, Dwayne_68, Ejemplo_66, Emaanora_71, GirlDinner_69, Goby_71, Godpower_71, Haizum_69, Hank144_72, Hippo_68, Janus_70, Katalie_67, Lannister_68, Lika_70, Lorelei_70, Maneekul_68, Nabi_71, Nanodon_70, Nishikigoi_70, OzzyJ_70, Pablito_69, Rana_71, RedBear_68, SarahRose_68, Snorlax_68, South40_67, SqueakyClean_70, Superstar_76, TagePhighter_70, Tefunt_69, Thestral_72, TinaBelcher_70, Toma_71, Triste_69, Triumph_72, TrvxScott_69, TuanPN_66, Werner_68, Whatever_68, Yasdnil_68,

Genes that have the "Most Annotated" start but do not call it:
• LilyPad_45, Sujidade_71, Suzy_41, Zemlya_71,

Genes that do not have the "Most Annotated" start:
• 20ES_89, AN3_87, Aaronocolus_68, Acolyte_81, Aikoy_60, Alsaber_72, Amela_71, Anselm_89, Argie_79, Bantam_137, BeardedLady_69, BengiVuitton_89, Beyoncage_41, BiteSize_41, BobSwaget_82, Bovely_68, BroPlease_69, BryanRecycles_70, CRB1_88, Cardigan_197, Celery_76, Celia_74, Cepens_78, Chargerpower_87, ChipMunk_88, Conan_73, D12_76, Daredevil_130, DatBoi_134, Deloris_89, Dexers_70, Djokovic_41, ELB20_71, Eddasa_71, ElGato_73, EnochSoames_72, Esperer_69, EvilGenius_87, FiringLine_87, First_0088, Gail_89, GodPhather_77, GreenWeasel_71, HippoHollow_85, Hydra_71, Indigo_67, Issmi_70, Itza_77, Iwokeuplikedis_91, Izzy_70, Jash_70, Jeeves_89, Jeon_73, Jevington_72, Jhitchelle_69, JonJames_194, JoshKayV_90, Kaine_72, KingCyrus_86, LadyBird_91, Legacy_68, Leopard_59, Leviticus_69, LionsBait_85, LittleFella_50, Lokk_83, Loofah_77, Luchador_86, Madi_41, Marav_72, Megabear_76, MyraDee_81, Nerdos_67, Oliynyk_70, Omar_74, Onyinye_60, Ozzie_68, PR_77, Paedore_74, Paolo_74, Pavo_73, Phettuccine_68, Provolone_73, Puginator_74, QueenBeesly_87, R4_73, RedRock_88, Rusticus_70, Saftant_70, SemperFi_87, Sienna_41,

SororFago_86, SpeedDemon_1400, Speedwell_74, Sudan_72, Sunhee_88, SunkenRoot_71, SunsetPointe_68, Taptic_79, TarsusIV_86, Terapin_42, Towmatter_127, Unstoppable_68, Urza_76, VA6_87, Vanseggelen_77, Verabelle_74, Verse_72, VieEnRose_75, Yosif_73, Yvonnetastic_195, Zainub_74, ZamZam_72, phiCAM_68,

Summary by start number:

Start 22:
• Found in 4 of 174 (2.3%) of genes in pham
• Manual Annotations of this start: 2 of 165
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Aikoy_60 (AE), Leopard_59 (AE),

Start 25:
• Found in 17 of 174 (9.8%) of genes in pham
• Manual Annotations of this start: 15 of 165
• Called 88.2% of time when present
• Phage (with cluster) where this start called: Argie_79 (W), Cepens_78 (W), D12_76 (W), Gail_89 (A14), GodPhather_77 (W), Jeeves_89 (A14), Jeon_73 (W), Luchador_86 (A14), Megabear_76 (W), MyraDee_81 (A18), Onyinye_60 (AE), PR_77 (W), SororFago_86 (A14), Sunhee_88 (A14), Taptic_79 (W),

Start 30:
• Found in 15 of 174 (8.6%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 6.7% of time when present
• Phage (with cluster) where this start called: Acolyte_81 (A2),

Start 38:
• Found in 7 of 174 (4.0%) of genes in pham
• Manual Annotations of this start: 7 of 165
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beyoncage_41 (DG1), BiteSize_41 (DG1), Djokovic_41 (DG1), Madi_41 (DG1), Sienna_41 (DG1), Suzy_41 (DG1), Terapin_42 (DG1),

Start 39:
• Found in 25 of 174 (14.4%) of genes in pham
• Manual Annotations of this start: 21 of 165
• Called 96.0% of time when present
• Phage (with cluster) where this start called: 20ES_89 (A2), AN3_87 (A2), Anselm_89 (A2), BengiVuitton_89 (A2), BobSwaget_82 (A2), CRB1_88 (A2), Chargerpower_87 (A22), ChipMunk_88 (A2), Deloris_89 (A2), EvilGenius_87 (A2), FiringLine_87 (A2), First_0088 (A2), HippoHollow_85 (A2), Iwokeuplikedis_91 (A2), JoshKayV_90 (A2), KingCyrus_86 (A2), LadyBird_91 (A2), LionsBait_85 (A2), Lokk_83 (A2), QueenBeesly_87 (A2), RedRock_88 (A2), SemperFi_87 (A2), TarsusIV_86 (A2), VA6_87 (A2),

Start 40:
• Found in 1 of 174 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 100.0% of time when present

• Phage (with cluster) where this start called: LilyPad_45 (DG1),

Start 42:
• Found in 9 of 174 (5.2%) of genes in pham
• Manual Annotations of this start: 3 of 165
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Bantam_137 (DL), DatBoi_134 (DL), SpeedDemon_1400 (DL),

Start 43:
• Found in 5 of 174 (2.9%) of genes in pham
• Manual Annotations of this start: 4 of 165
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Daredevil_130 (DL), JonJames_194 (DD), Towmatter_127 (DL), Yvonnetastic_195 (DD),

Start 44:
• Found in 2 of 174 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Cardigan_197 (DD),

Start 46:
• Found in 5 of 174 (2.9%) of genes in pham
• Manual Annotations of this start: 2 of 165
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Sujidade_71 (BD1), Zemlya_71 (BD1),

Start 49:
• Found in 60 of 174 (34.5%) of genes in pham
• Manual Annotations of this start: 55 of 165
• Called 93.3% of time when present
• Phage (with cluster) where this start called: Alvy_75 (BD2), Amethyst_69 (BD2), Andris_71 (BD2), Animus_69 (BD2), Asten_68 (BD1), Axiom_72 (BD2), BarryBee_71 (BD1), BartholomewSD_75 (BD2), Bowden_70 (BD2), Brataylor_72 (BD1), Caelum_73 (BD2), Celeste_71 (BD1), Chucky_68 (BD1), Danzina_71 (BD1), Dattran_72 (BD1), Daudau_70 (BD2), Diane_70 (BD2), Dwayne_68 (BD1), Ejemplo_66 (BD1), Emaanora_71 (BD1), GirlDinner_69 (BD2), Goby_71 (BD1), Godpower_71 (BD1), Haizum_69 (BD2), Hank144_72 (BD2), Hippo_68 (BD1), Janus_70 (BD2), Katalie_67 (BD1), Lannister_68 (BD1), Lika_70 (BD1), Lorelei_70 (BD1), Maneekul_68 (BD1), Nabi_71 (BD1), Nanodon_70 (BD1), Nishikigoi_70 (BD2), OzzyJ_70 (BD1), Pablito_69 (BD2), Rana_71 (BD1), RedBear_68 (BD1), SarahRose_68 (BD1), Snorlax_68 (BD1), South40_67 (BD1), SqueakyClean_70 (BD2), Superstar_76 (BD2), TagePhighter_70 (BD1), Tefunt_69 (BD2), Thestral_72 (BD2), TinaBelcher_70 (BD2), Toma_71 (BD1), Triste_69 (BD1), Triumph_72 (BD2), TrvxScott_69 (BD2), TuanPN_66 (BD1), Werner_68 (BD1), Whatever_68 (BD1), Yasdnil_68 (BD1),

Start 50:
• Found in 50 of 174 (28.7%) of genes in pham
• Manual Annotations of this start: 46 of 165
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Aaronocolus_68 (BD1), Alsaber_72 (BD3), BeardedLady_69 (BD1), Bovely_68 (BD1), BroPlease_69 (BD4), BryanRecycles_70 (BD1), Conan_73 (BD3), Dexers_70 (BD3), ELB20_71 (BD2), Eddasa_71 (BD1), ElGato_73 (BD3), EnochSoames_72 (BD1), Esperer_69 (BD1), GreenWeasel_71 (BD4), Hydra_71 (BD1), Indigo_67 (BD1), Issmi_70 (BD2), Izzy_70 (BD1), Jash_70 (BD1), Jevington_72 (BD2), Jhitchelle_69 (BD3), Kaine_72 (BD3), Legacy_68 (BD1), Leviticus_69 (BD1), Loofah_77 (BD2), Marav_72 (BD2), Nerdos_67 (BD1), Oliynyk_70 (BD1), Omar_74 (BD2), Ozzie_68 (BD1), Paedore_74 (BD2), Paolo_74 (BD2), Pavo_73 (BD3), Phettuccine_68 (BD1), Provolone_73 (BD3), Puginator_74 (BD2), R4_73 (BD2), Rusticus_70 (BD1), Saftant_70 (BD3), Speedwell_74 (BD3), Sudan_72 (BD3), SunkenRoot_71 (BD3), SunsetPointe_68 (BD1), Unstoppable_68 (BD1), Vanseggelen_77 (BD3), Verabelle_74 (BD3), Verse_72 (BD3), Zainub_74 (BD2), ZamZam_72 (BD3), phiCAM_68 (BD3),

Start 52:
• Found in 13 of 174 (7.5%) of genes in pham
• Manual Annotations of this start: 4 of 165
• Called 30.8% of time when present
• Phage (with cluster) where this start called: Celia_74 (BD6), Itza_77 (BD6), Urza_76 (BD6), VieEnRose_75 (BD6),

Start 53:
• Found in 1 of 174 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Yosif_73 (BD3),

Start 54:
• Found in 33 of 174 (19.0%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 6.1% of time when present
• Phage (with cluster) where this start called: Amela_71 (BD3), Celery_76 (BD3),

Start 62:
• Found in 1 of 174 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 165
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LittleFella_50 (DG2),

Summary by clusters:

There are 15 clusters represented in this pham: A14, DL, AE, W, DD, A18, A22, DG2, BD4, A2, BD1, BD6, BD3, BD2, DG1,

Info for manual annotations of cluster A14:
•Start number 25 was manually annotated 5 times for cluster A14.

Info for manual annotations of cluster A18:
•Start number 25 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:
•Start number 30 was manually annotated 1 time for cluster A2.
•Start number 39 was manually annotated 20 times for cluster A2.

Info for manual annotations of cluster A22:
•Start number 39 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster AE:
•Start number 22 was manually annotated 2 times for cluster AE.
•Start number 25 was manually annotated 1 time for cluster AE.

Info for manual annotations of cluster BD1:
•Start number 46 was manually annotated 2 times for cluster BD1.
•Start number 49 was manually annotated 33 times for cluster BD1.
•Start number 50 was manually annotated 19 times for cluster BD1.

Info for manual annotations of cluster BD2:
•Start number 49 was manually annotated 22 times for cluster BD2.
•Start number 50 was manually annotated 11 times for cluster BD2.

Info for manual annotations of cluster BD3:
•Start number 50 was manually annotated 14 times for cluster BD3.
•Start number 53 was manually annotated 1 time for cluster BD3.
•Start number 54 was manually annotated 1 time for cluster BD3.

Info for manual annotations of cluster BD4:
•Start number 50 was manually annotated 2 times for cluster BD4.

Info for manual annotations of cluster BD6:
•Start number 52 was manually annotated 4 times for cluster BD6.

Info for manual annotations of cluster DD:
•Start number 43 was manually annotated 2 times for cluster DD.
•Start number 44 was manually annotated 1 time for cluster DD.

Info for manual annotations of cluster DG1:
•Start number 38 was manually annotated 7 times for cluster DG1.
•Start number 40 was manually annotated 1 time for cluster DG1.

Info for manual annotations of cluster DG2:
•Start number 62 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DL:
•Start number 42 was manually annotated 3 times for cluster DL.
•Start number 43 was manually annotated 2 times for cluster DL.

Info for manual annotations of cluster W:
•Start number 25 was manually annotated 8 times for cluster W.

Gene Information:

Gene: 20ES_89 Start: 49404, Stop: 48979, Start Num: 39
Candidate Starts for 20ES_89:

(Start: 30 @49428 has 1 MA's), (Start: 39 @49404 has 21 MA's), (80, 49209), (81, 49203), (124, 49020), (129, 48993),

Gene: AN3_87 Start: 47668, Stop: 47243, Start Num: 39
Candidate Starts for AN3_87:
(Start: 30 @47692 has 1 MA's), (Start: 39 @47668 has 21 MA's), (80, 47473), (81, 47467), (124, 47284), (129, 47257),

Gene: Aaronocolus_68 Start: 46268, Stop: 45861, Start Num: 50
Candidate Starts for Aaronocolus_68:
(10, 46460), (16, 46409), (Start: 50 @46268 has 46 MA's), (51, 46262), (Start: 54 @46250 has 1 MA's), (64, 46214), (77, 46118), (79, 46109), (88, 46079), (123, 45905), (126, 45893), (129, 45875),

Gene: Acolyte_81 Start: 48464, Stop: 47973, Start Num: 30
Candidate Starts for Acolyte_81:
(Start: 30 @48464 has 1 MA's), (Start: 39 @48434 has 21 MA's), (80, 48245), (96, 48167), (117, 48074), (124, 48014),

Gene: Aikoy_60 Start: 43844, Stop: 44341, Start Num: 22
Candidate Starts for Aikoy_60:
(Start: 22 @43844 has 2 MA's), (Start: 25 @43862 has 15 MA's), (34, 43910), (35, 43919), (Start: 42 @43946 has 3 MA's), (56, 43982), (59, 43991), (70, 44060), (72, 44075), (75, 44093), (84, 44138), (90, 44162), (94, 44174), (122, 44288), (123, 44297), (129, 44327),

Gene: Alsaber_72 Start: 46335, Stop: 45925, Start Num: 50
Candidate Starts for Alsaber_72:
(Start: 50 @46335 has 46 MA's), (77, 46188), (106, 46068), (123, 45969), (126, 45957), (129, 45939),

Gene: Alvy_75 Start: 47707, Stop: 47282, Start Num: 49
Candidate Starts for Alvy_75:
(8, 47917), (Start: 49 @47707 has 55 MA's), (64, 47650), (88, 47503), (90, 47494), (106, 47425), (126, 47314),

Gene: Amela_71 Start: 46935, Stop: 46573, Start Num: 54
Candidate Starts for Amela_71:
(Start: 54 @46935 has 1 MA's), (90, 46782), (123, 46617), (126, 46605),

Gene: Amethyst_69 Start: 44727, Stop: 44302, Start Num: 49
Candidate Starts for Amethyst_69:
(23, 44811), (Start: 49 @44727 has 55 MA's), (77, 44574), (106, 44445), (113, 44406), (125, 44340),

Gene: Andris_71 Start: 45608, Stop: 45183, Start Num: 49
Candidate Starts for Andris_71:
(13, 45806), (17, 45755), (Start: 49 @45608 has 55 MA's), (85, 45413), (106, 45326),

Gene: Animus_69 Start: 46259, Stop: 45834, Start Num: 49
Candidate Starts for Animus_69:
(Start: 49 @46259 has 55 MA's), (88, 46055), (100, 46001), (110, 45953), (129, 45848),

Gene: Anselm_89 Start: 49507, Stop: 49082, Start Num: 39
Candidate Starts for Anselm_89:
(Start: 39 @49507 has 21 MA's), (80, 49312), (81, 49306), (88, 49273), (123, 49126), (124, 49123), (129, 49096),

Gene: Argie_79 Start: 55898, Stop: 56383, Start Num: 25
Candidate Starts for Argie_79:
(Start: 25 @55898 has 15 MA's), (32, 55934), (33, 55943), (35, 55958), (Start: 52 @56009 has 4 MA's), (63, 56039), (65, 56051), (70, 56087), (76, 56135), (126, 56351), (129, 56369), (130, 56372),

Gene: Asten_68 Start: 48266, Stop: 47850, Start Num: 49
Candidate Starts for Asten_68:
(Start: 49 @48266 has 55 MA's), (77, 48113), (90, 48062), (106, 47993),

Gene: Axiom_72 Start: 46358, Stop: 45933, Start Num: 49
Candidate Starts for Axiom_72:
(13, 46556), (17, 46505), (Start: 49 @46358 has 55 MA's), (88, 46154), (106, 46076),

Gene: Bantam_137 Start: 80637, Stop: 80239, Start Num: 42
Candidate Starts for Bantam_137:
(Start: 42 @80637 has 3 MA's), (63, 80580), (64, 80577), (93, 80406), (95, 80400), (115, 80343), (127, 80265),

Gene: BarryBee_71 Start: 48239, Stop: 47823, Start Num: 49
Candidate Starts for BarryBee_71:
(Start: 49 @48239 has 55 MA's), (90, 48035), (106, 47966),

Gene: BartholomewSD_75 Start: 46826, Stop: 46401, Start Num: 49
Candidate Starts for BartholomewSD_75:
(8, 47036), (Start: 49 @46826 has 55 MA's), (64, 46769), (88, 46622), (90, 46613), (106, 46544), (126, 46433),

Gene: BeardedLady_69 Start: 46648, Stop: 46241, Start Num: 50
Candidate Starts for BeardedLady_69:
(10, 46840), (16, 46789), (Start: 50 @46648 has 46 MA's), (51, 46642), (Start: 54 @46630 has 1 MA's), (64, 46594), (77, 46498), (79, 46489), (88, 46459), (109, 46369), (123, 46285), (126, 46273), (129, 46255),

Gene: BengiVuitton_89 Start: 49509, Stop: 49084, Start Num: 39
Candidate Starts for BengiVuitton_89:
(Start: 30 @49533 has 1 MA's), (Start: 39 @49509 has 21 MA's), (80, 49314), (81, 49308), (124, 49125), (129, 49098),

Gene: Beyoncage_41 Start: 33094, Stop: 33540, Start Num: 38
Candidate Starts for Beyoncage_41:
(23, 33019), (37, 33091), (Start: 38 @33094 has 7 MA's), (Start: 54 @33142 has 1 MA's), (82, 33292), (88, 33322), (89, 33328), (92, 33346), (101, 33379), (125, 33502), (130, 33529),

Gene: BiteSize_41 Start: 33180, Stop: 33626, Start Num: 38
Candidate Starts for BiteSize_41:
(23, 33105), (37, 33177), (Start: 38 @33180 has 7 MA's), (Start: 54 @33228 has 1 MA's), (82, 33378), (88, 33408), (89, 33414), (92, 33432), (101, 33465), (125, 33588), (130, 33615),

Gene: BobSwaget_82 Start: 46976, Stop: 46551, Start Num: 39
Candidate Starts for BobSwaget_82:
(Start: 30 @47006 has 1 MA's), (Start: 39 @46976 has 21 MA's), (80, 46781), (81, 46775), (88, 46742), (123, 46595), (124, 46592),

Gene: Bovely_68 Start: 46271, Stop: 45864, Start Num: 50
Candidate Starts for Bovely_68:
(10, 46463), (16, 46412), (Start: 50 @46271 has 46 MA's), (51, 46265), (Start: 54 @46253 has 1 MA's), (64, 46217), (77, 46121), (79, 46112), (88, 46082), (123, 45908), (126, 45896), (129, 45878),

Gene: Bowden_70 Start: 47396, Stop: 46971, Start Num: 49
Candidate Starts for Bowden_70:
(Start: 49 @47396 has 55 MA's), (64, 47339), (88, 47192), (90, 47183), (106, 47114), (126, 47003),

Gene: Brataylor_72 Start: 47786, Stop: 47373, Start Num: 49
Candidate Starts for Brataylor_72:
(16, 47918), (Start: 49 @47786 has 55 MA's), (64, 47732), (77, 47636), (88, 47594), (90, 47585), (106, 47516), (123, 47417),

Gene: BroPlease_69 Start: 45409, Stop: 44993, Start Num: 50
Candidate Starts for BroPlease_69:
(Start: 50 @45409 has 46 MA's), (51, 45403), (61, 45367), (77, 45259), (88, 45214), (91, 45196), (106, 45136), (123, 45037), (125, 45031), (126, 45025), (129, 45007),

Gene: BryanRecycles_70 Start: 46765, Stop: 46358, Start Num: 50
Candidate Starts for BryanRecycles_70:
(10, 46966), (16, 46915), (20, 46888), (Start: 50 @46765 has 46 MA's), (51, 46759), (77, 46615), (79, 46606), (88, 46576), (109, 46486), (123, 46402), (126, 46390), (129, 46372),

Gene: CRB1_88 Start: 49600, Stop: 49232, Start Num: 39
Candidate Starts for CRB1_88:
(Start: 39 @49600 has 21 MA's), (45, 49576), (56, 49543), (63, 49513), (80, 49411), (123, 49276), (124, 49273), (129, 49246),

Gene: Caelum_73 Start: 45662, Stop: 45240, Start Num: 49
Candidate Starts for Caelum_73:
(Start: 49 @45662 has 55 MA's), (77, 45512), (90, 45452), (104, 45386), (123, 45284), (126, 45272),

Gene: Cardigan_197 Start: 96758, Stop: 96372, Start Num: 44
Candidate Starts for Cardigan_197:
(Start: 44 @96758 has 1 MA's), (74, 96644), (87, 96590), (92, 96557), (125, 96410), (130, 96383),

Gene: Celery_76 Start: 45989, Stop: 45624, Start Num: 54
Candidate Starts for Celery_76:
(Start: 54 @45989 has 1 MA's), (90, 45836), (107, 45758), (123, 45668), (126, 45656),

Gene: Celeste_71 Start: 47254, Stop: 46841, Start Num: 49
Candidate Starts for Celeste_71:
(16, 47386), (Start: 49 @47254 has 55 MA's), (64, 47200), (77, 47104), (88, 47062), (90, 47053), (106, 46984), (123, 46885),

Gene: Celia_74 Start: 48305, Stop: 47907, Start Num: 52
Candidate Starts for Celia_74:
(Start: 52 @48305 has 4 MA's), (57, 48290), (58, 48287), (90, 48116), (126, 47939),

Gene: Cepens_78 Start: 55010, Stop: 55492, Start Num: 25
Candidate Starts for Cepens_78:

(Start: 25 @55010 has 15 MA's), (32, 55046), (33, 55055), (35, 55070), (Start: 52 @55121 has 4 MA's), (63, 55151), (65, 55163), (70, 55199), (76, 55244), (126, 55460), (129, 55478), (130, 55481),

Gene: Chargerpower_87 Start: 47632, Stop: 47207, Start Num: 39
Candidate Starts for Chargerpower_87:
(Start: 39 @47632 has 21 MA's), (73, 47476), (80, 47437), (81, 47431), (88, 47398), (116, 47311), (129, 47221),

Gene: ChipMunk_88 Start: 50564, Stop: 50139, Start Num: 39
Candidate Starts for ChipMunk_88:
(Start: 30 @50594 has 1 MA's), (Start: 39 @50564 has 21 MA's), (80, 50369), (81, 50363), (88, 50330), (123, 50183), (124, 50180), (129, 50153),

Gene: Chucky_68 Start: 48301, Stop: 47885, Start Num: 49
Candidate Starts for Chucky_68:
(Start: 49 @48301 has 55 MA's), (77, 48148), (90, 48097), (106, 48028),

Gene: Conan_73 Start: 46587, Stop: 46177, Start Num: 50
Candidate Starts for Conan_73:
(Start: 50 @46587 has 46 MA's), (77, 46440), (106, 46320), (123, 46221), (126, 46209), (129, 46191),

Gene: D12_76 Start: 55645, Stop: 56127, Start Num: 25
Candidate Starts for D12_76:
(Start: 25 @55645 has 15 MA's), (32, 55681), (33, 55690), (35, 55705), (Start: 52 @55756 has 4 MA's), (63, 55786), (65, 55798), (70, 55834), (76, 55879), (126, 56095), (129, 56113), (130, 56116),

Gene: Danzina_71 Start: 47492, Stop: 47079, Start Num: 49
Candidate Starts for Danzina_71:
(16, 47624), (Start: 49 @47492 has 55 MA's), (64, 47438), (77, 47342), (90, 47291), (106, 47222), (123, 47123),

Gene: Daredevil_130 Start: 77242, Stop: 76841, Start Num: 43
Candidate Starts for Daredevil_130:
(2, 77578), (4, 77500), (11, 77449), (14, 77443), (Start: 43 @77242 has 4 MA's), (70, 77140), (85, 77053), (102, 76984), (112, 76954), (114, 76948), (124, 76882),

Gene: DatBoi_134 Start: 79614, Stop: 79216, Start Num: 42
Candidate Starts for DatBoi_134:
(Start: 42 @79614 has 3 MA's), (64, 79554), (93, 79383), (127, 79242),

Gene: Dattran_72 Start: 47707, Stop: 47294, Start Num: 49
Candidate Starts for Dattran_72:
(16, 47839), (Start: 49 @47707 has 55 MA's), (64, 47653), (77, 47557), (88, 47515), (90, 47506), (106, 47437), (123, 47338),

Gene: Daudau_70 Start: 45237, Stop: 44812, Start Num: 49
Candidate Starts for Daudau_70:
(Start: 49 @45237 has 55 MA's), (106, 44955),

Gene: Deloris_89 Start: 49202, Stop: 48777, Start Num: 39
Candidate Starts for Deloris_89:
(Start: 30 @49226 has 1 MA's), (Start: 39 @49202 has 21 MA's), (80, 49007), (81, 49001), (124, 48818), (129, 48791),

Gene: Dexers_70 Start: 46547, Stop: 46152, Start Num: 50
Candidate Starts for Dexers_70:
(Start: 50 @46547 has 46 MA's), (51, 46541), (94, 46340), (106, 46295), (123, 46196),

Gene: Diane_70 Start: 45814, Stop: 45389, Start Num: 49
Candidate Starts for Diane_70:
(Start: 49 @45814 has 55 MA's), (77, 45661), (106, 45532), (113, 45493),

Gene: Djokovic_41 Start: 33093, Stop: 33539, Start Num: 38
Candidate Starts for Djokovic_41:
(23, 33018), (37, 33090), (Start: 38 @33093 has 7 MA's), (Start: 54 @33141 has 1 MA's), (82, 33291), (88, 33321), (89, 33327), (92, 33345), (101, 33378), (125, 33501), (130, 33528),

Gene: Dwayne_68 Start: 48289, Stop: 47873, Start Num: 49
Candidate Starts for Dwayne_68:
(Start: 49 @48289 has 55 MA's), (77, 48136), (90, 48085), (106, 48016),

Gene: ELB20_71 Start: 46105, Stop: 45692, Start Num: 50
Candidate Starts for ELB20_71:
(Start: 50 @46105 has 46 MA's), (91, 45892), (97, 45871), (106, 45832), (123, 45736),

Gene: Eddasa_71 Start: 47304, Stop: 46897, Start Num: 50
Candidate Starts for Eddasa_71:
(10, 47505), (16, 47454), (20, 47427), (Start: 50 @47304 has 46 MA's), (51, 47298), (77, 47154), (79, 47145), (88, 47115), (109, 47025), (123, 46941), (126, 46929), (129, 46911),

Gene: Ejemplo_66 Start: 48227, Stop: 47811, Start Num: 49
Candidate Starts for Ejemplo_66:
(Start: 49 @48227 has 55 MA's), (77, 48074), (90, 48023), (106, 47954),

Gene: ElGato_73 Start: 46450, Stop: 46055, Start Num: 50
Candidate Starts for ElGato_73:
(Start: 50 @46450 has 46 MA's), (51, 46444), (94, 46243), (106, 46198), (123, 46099),

Gene: Emaanora_71 Start: 48213, Stop: 47797, Start Num: 49
Candidate Starts for Emaanora_71:
(Start: 49 @48213 has 55 MA's), (77, 48060), (90, 48009), (106, 47940),

Gene: EnochSoames_72 Start: 46471, Stop: 46064, Start Num: 50
Candidate Starts for EnochSoames_72:
(10, 46672), (16, 46621), (Start: 50 @46471 has 46 MA's), (51, 46465), (Start: 54 @46453 has 1 MA's), (64, 46417), (77, 46321), (79, 46312), (88, 46282), (109, 46192), (123, 46108), (129, 46078),

Gene: Esperer_69 Start: 46614, Stop: 46207, Start Num: 50
Candidate Starts for Esperer_69:
(10, 46806), (16, 46755), (Start: 50 @46614 has 46 MA's), (51, 46608), (Start: 54 @46596 has 1 MA's), (64, 46560), (79, 46455), (88, 46425), (123, 46251), (126, 46239), (129, 46221),

Gene: EvilGenius_87 Start: 50565, Stop: 50140, Start Num: 39
Candidate Starts for EvilGenius_87:
(Start: 30 @50595 has 1 MA's), (Start: 39 @50565 has 21 MA's), (80, 50370), (81, 50364), (88, 50331), (123, 50184), (124, 50181), (129, 50154),

Gene: FiringLine_87 Start: 49451, Stop: 49026, Start Num: 39
Candidate Starts for FiringLine_87:
(29, 49499), (Start: 39 @49451 has 21 MA's), (80, 49256), (81, 49250), (88, 49217), (123, 49070), (124, 49067), (129, 49040),

Gene: First_0088 Start: 49307, Stop: 48882, Start Num: 39
Candidate Starts for First_0088:
(Start: 30 @49331 has 1 MA's), (Start: 39 @49307 has 21 MA's), (80, 49112), (81, 49106), (124, 48923), (129, 48896),

Gene: Gail_89 Start: 48855, Stop: 48409, Start Num: 25
Candidate Starts for Gail_89:
(Start: 25 @48855 has 15 MA's), (33, 48813), (34, 48807), (Start: 42 @48771 has 3 MA's), (Start: 54 @48741 has 1 MA's), (66, 48702), (122, 48462), (125, 48447), (129, 48423),

Gene: GirlDinner_69 Start: 45753, Stop: 45328, Start Num: 49
Candidate Starts for GirlDinner_69:
(Start: 49 @45753 has 55 MA's), (88, 45549), (100, 45495), (110, 45447), (129, 45342),

Gene: Goby_71 Start: 48124, Stop: 47711, Start Num: 49
Candidate Starts for Goby_71:
(16, 48256), (Start: 49 @48124 has 55 MA's), (64, 48070), (77, 47974), (88, 47932), (90, 47923), (106, 47854), (123, 47755),

Gene: GodPhather_77 Start: 55342, Stop: 55824, Start Num: 25
Candidate Starts for GodPhather_77:
(5, 55195), (6, 55198), (Start: 25 @55342 has 15 MA's), (32, 55378), (35, 55402), (Start: 52 @55453 has 4 MA's), (63, 55483), (65, 55495), (70, 55531), (76, 55576), (83, 55612), (126, 55792), (129, 55810), (130, 55813),

Gene: Godpower_71 Start: 47416, Stop: 47003, Start Num: 49
Candidate Starts for Godpower_71:
(16, 47548), (Start: 49 @47416 has 55 MA's), (64, 47362), (77, 47266), (90, 47215), (94, 47191), (106, 47146), (123, 47047),

Gene: GreenWeasel_71 Start: 45410, Stop: 44994, Start Num: 50
Candidate Starts for GreenWeasel_71:
(Start: 50 @45410 has 46 MA's), (51, 45404), (61, 45368), (77, 45260), (88, 45215), (91, 45197), (106, 45137), (123, 45038), (125, 45032), (126, 45026), (129, 45008),

Gene: Haizum_69 Start: 45535, Stop: 45110, Start Num: 49
Candidate Starts for Haizum_69:
(23, 45619), (Start: 49 @45535 has 55 MA's), (77, 45382), (106, 45253), (113, 45214), (128, 45133),

Gene: Hank144_72 Start: 46341, Stop: 45922, Start Num: 49
Candidate Starts for Hank144_72:
(26, 46422), (Start: 49 @46341 has 55 MA's), (58, 46311), (88, 46146), (123, 45969),

Gene: Hippo_68 Start: 48275, Stop: 47859, Start Num: 49
Candidate Starts for Hippo_68:
(Start: 49 @48275 has 55 MA's), (90, 48071), (106, 48002),

Gene: HippoHollow_85 Start: 50112, Stop: 49744, Start Num: 39
Candidate Starts for HippoHollow_85:
(Start: 39 @50112 has 21 MA's), (45, 50088), (63, 50025), (67, 50001), (80, 49923), (123, 49788), (124, 49785), (129, 49758),

Gene: Hydra_71 Start: 47458, Stop: 47051, Start Num: 50
Candidate Starts for Hydra_71:
(10, 47650), (16, 47599), (Start: 50 @47458 has 46 MA's), (51, 47452), (Start: 54 @47440 has 1 MA's), (64, 47404), (77, 47308), (79, 47299), (88, 47269), (123, 47095), (126, 47083), (129, 47065),

Gene: Indigo_67 Start: 46264, Stop: 45857, Start Num: 50
Candidate Starts for Indigo_67:
(10, 46456), (16, 46405), (Start: 50 @46264 has 46 MA's), (51, 46258), (Start: 54 @46246 has 1 MA's), (64, 46210), (77, 46114), (79, 46105), (88, 46075), (123, 45901), (126, 45889), (129, 45871),

Gene: Issmi_70 Start: 45905, Stop: 45495, Start Num: 50
Candidate Starts for Issmi_70:
(Start: 50 @45905 has 46 MA's), (61, 45863), (88, 45716), (106, 45638),

Gene: Itza_77 Start: 48238, Stop: 47840, Start Num: 52
Candidate Starts for Itza_77:
(Start: 52 @48238 has 4 MA's), (57, 48223), (58, 48220), (90, 48049), (126, 47872),

Gene: Iwokeuplikedis_91 Start: 49657, Stop: 49196, Start Num: 39
Candidate Starts for Iwokeuplikedis_91:
(Start: 39 @49657 has 21 MA's), (45, 49633), (Start: 52 @49612 has 4 MA's), (77, 49480), (80, 49468), (81, 49462), (125, 49234), (128, 49219), (129, 49210),

Gene: Izzy_70 Start: 46812, Stop: 46405, Start Num: 50
Candidate Starts for Izzy_70:
(10, 47013), (16, 46962), (20, 46935), (Start: 50 @46812 has 46 MA's), (51, 46806), (77, 46662), (79, 46653), (88, 46623), (109, 46533), (123, 46449), (126, 46437), (129, 46419),

Gene: Janus_70 Start: 46093, Stop: 45668, Start Num: 49
Candidate Starts for Janus_70:
(Start: 49 @46093 has 55 MA's), (88, 45889), (100, 45835), (110, 45787), (129, 45682),

Gene: Jash_70 Start: 46765, Stop: 46358, Start Num: 50
Candidate Starts for Jash_70:
(10, 46966), (16, 46915), (20, 46888), (Start: 50 @46765 has 46 MA's), (51, 46759), (77, 46615), (79, 46606), (88, 46576), (109, 46486), (123, 46402), (126, 46390), (129, 46372),

Gene: Jeeves_89 Start: 47635, Stop: 47189, Start Num: 25
Candidate Starts for Jeeves_89:
(Start: 25 @47635 has 15 MA's), (33, 47593), (66, 47482), (76, 47413), (122, 47242), (125, 47227),

Gene: Jeon_73 Start: 54835, Stop: 55317, Start Num: 25
Candidate Starts for Jeon_73:
(5, 54688), (6, 54691), (Start: 25 @54835 has 15 MA's), (32, 54871), (35, 54895), (Start: 52 @54946 has 4 MA's), (63, 54976), (65, 54988), (70, 55024), (76, 55069), (83, 55105), (126, 55285), (129, 55303), (130, 55306),

Gene: Jevington_72 Start: 45336, Stop: 44923, Start Num: 50

Candidate Starts for Jevington_72:
(Start: 50 @45336 has 46 MA's), (51, 45330), (Start: 54 @45318 has 1 MA's), (106, 45066), (123, 44967), (125, 44961), (126, 44955),

Gene: Jhitchelle_69 Start: 45621, Stop: 45214, Start Num: 50
Candidate Starts for Jhitchelle_69:
(Start: 50 @45621 has 46 MA's), (77, 45477), (90, 45426), (106, 45357), (130, 45225),

Gene: JonJames_194 Start: 97288, Stop: 96896, Start Num: 43
Candidate Starts for JonJames_194:
(1, 97642), (Start: 22 @97396 has 2 MA's), (31, 97342), (36, 97315), (Start: 43 @97288 has 4 MA's), (Start: 44 @97285 has 1 MA's), (69, 97210), (71, 97198), (77, 97153), (80, 97141), (92, 97075), (93, 97072), (127, 96922), (129, 96910), (130, 96907),

Gene: JoshKayV_90 Start: 49922, Stop: 49461, Start Num: 39
Candidate Starts for JoshKayV_90:
(7, 50111), (Start: 39 @49922 has 21 MA's), (48, 49889), (80, 49733), (81, 49727), (117, 49562), (129, 49475),

Gene: Kaine_72 Start: 46359, Stop: 45949, Start Num: 50
Candidate Starts for Kaine_72:
(Start: 50 @46359 has 46 MA's), (77, 46212), (106, 46092), (123, 45993), (126, 45981), (129, 45963),

Gene: Katalie_67 Start: 48006, Stop: 47593, Start Num: 49
Candidate Starts for Katalie_67:
(16, 48138), (19, 48117), (27, 48060), (Start: 49 @48006 has 55 MA's), (64, 47952), (77, 47856), (90, 47805), (106, 47736),

Gene: KingCyrus_86 Start: 50578, Stop: 50153, Start Num: 39
Candidate Starts for KingCyrus_86:
(Start: 30 @50608 has 1 MA's), (Start: 39 @50578 has 21 MA's), (80, 50383), (81, 50377), (88, 50344), (123, 50197), (124, 50194), (129, 50167),

Gene: LadyBird_91 Start: 49745, Stop: 49377, Start Num: 39
Candidate Starts for LadyBird_91:
(Start: 30 @49769 has 1 MA's), (Start: 39 @49745 has 21 MA's), (45, 49721), (66, 49643), (80, 49556), (123, 49421), (124, 49418), (129, 49391),

Gene: Lannister_68 Start: 47002, Stop: 46589, Start Num: 49
Candidate Starts for Lannister_68:
(Start: 49 @47002 has 55 MA's), (77, 46852), (90, 46801), (106, 46732), (129, 46603),

Gene: Legacy_68 Start: 46647, Stop: 46240, Start Num: 50
Candidate Starts for Legacy_68:
(10, 46839), (16, 46788), (Start: 50 @46647 has 46 MA's), (51, 46641), (Start: 54 @46629 has 1 MA's), (64, 46593), (77, 46497), (79, 46488), (88, 46458), (123, 46284), (126, 46272), (129, 46254),

Gene: Leopard_59 Start: 44129, Stop: 44626, Start Num: 22
Candidate Starts for Leopard_59:
(Start: 22 @44129 has 2 MA's), (Start: 25 @44147 has 15 MA's), (34, 44195), (35, 44204), (Start: 42 @44231 has 3 MA's), (56, 44267), (59, 44276), (70, 44345), (72, 44360), (75, 44378), (84, 44423), (90, 44447), (94, 44459), (122, 44573), (123, 44582), (129, 44612),

Gene: Leviticus_69 Start: 46801, Stop: 46394, Start Num: 50
Candidate Starts for Leviticus_69:
(10, 46993), (16, 46942), (Start: 50 @46801 has 46 MA's), (51, 46795), (Start: 54 @46783 has 1 MA's), (64, 46747), (77, 46651), (79, 46642), (88, 46612), (123, 46438), (126, 46426), (129, 46408),

Gene: Lika_70 Start: 47969, Stop: 47556, Start Num: 49
Candidate Starts for Lika_70:
(16, 48101), (Start: 49 @47969 has 55 MA's), (64, 47915), (77, 47819), (90, 47768), (94, 47744), (106, 47699), (123, 47600),

Gene: LilyPad_45 Start: 34622, Stop: 35053, Start Num: 40
Candidate Starts for LilyPad_45:
(Start: 40 @34622 has 1 MA's), (41, 34631), (Start: 43 @34637 has 4 MA's), (47, 34643), (Start: 49 @34649 has 55 MA's), (69, 34736), (78, 34793), (86, 34826), (99, 34880), (119, 34967), (121, 34985), (127, 35027), (130, 35042),

Gene: LionsBait_85 Start: 50052, Stop: 49684, Start Num: 39
Candidate Starts for LionsBait_85:
(Start: 39 @50052 has 21 MA's), (45, 50028), (63, 49965), (67, 49941), (80, 49863), (123, 49728), (124, 49725), (129, 49698),

Gene: LittleFella_50 Start: 36384, Stop: 36764, Start Num: 62
Candidate Starts for LittleFella_50:
(9, 36108), (15, 36156), (21, 36207), (24, 36225), (28, 36243), (60, 36369), (Start: 62 @36384 has 1 MA's), (68, 36426), (98, 36588), (108, 36630), (117, 36663), (120, 36690), (121, 36696), (129, 36750), (130, 36753),

Gene: Lokk_83 Start: 47597, Stop: 47172, Start Num: 39
Candidate Starts for Lokk_83:
(Start: 30 @47627 has 1 MA's), (Start: 39 @47597 has 21 MA's), (80, 47402), (81, 47396), (88, 47363), (123, 47216), (124, 47213),

Gene: Loofah_77 Start: 47253, Stop: 46837, Start Num: 50
Candidate Starts for Loofah_77:
(Start: 50 @47253 has 46 MA's), (97, 47019), (106, 46980), (123, 46881),

Gene: Lorelei_70 Start: 47260, Stop: 46847, Start Num: 49
Candidate Starts for Lorelei_70:
(Start: 46 @47266 has 2 MA's), (Start: 49 @47260 has 55 MA's), (64, 47206), (77, 47110), (88, 47068), (90, 47059), (106, 46990), (123, 46891),

Gene: Luchador_86 Start: 48736, Stop: 48290, Start Num: 25
Candidate Starts for Luchador_86:
(Start: 25 @48736 has 15 MA's), (33, 48694), (34, 48688), (Start: 42 @48652 has 3 MA's), (Start: 54 @48622 has 1 MA's), (66, 48583), (94, 48445), (125, 48328), (129, 48304),

Gene: Madi_41 Start: 33171, Stop: 33617, Start Num: 38
Candidate Starts for Madi_41:
(23, 33096), (37, 33168), (Start: 38 @33171 has 7 MA's), (Start: 54 @33219 has 1 MA's), (82, 33369), (88, 33399), (89, 33405), (92, 33423), (101, 33456), (125, 33579), (130, 33606),

Gene: Maneekul_68 Start: 48306, Stop: 47890, Start Num: 49
Candidate Starts for Maneekul_68:

(Start: 49 @48306 has 55 MA's), (77, 48153), (90, 48102), (106, 48033),

Gene: Marav_72 Start: 45322, Stop: 44909, Start Num: 50
Candidate Starts for Marav_72:
(Start: 50 @45322 has 46 MA's), (51, 45316), (Start: 54 @45304 has 1 MA's), (69, 45229), (106, 45052), (123, 44953), (125, 44947), (126, 44941),

Gene: Megabear_76 Start: 54933, Stop: 55415, Start Num: 25
Candidate Starts for Megabear_76:
(Start: 25 @54933 has 15 MA's), (32, 54969), (33, 54978), (35, 54993), (Start: 52 @55044 has 4 MA's), (63, 55074), (65, 55086), (70, 55122), (76, 55167), (126, 55383), (129, 55401), (130, 55404),

Gene: MyraDee_81 Start: 45138, Stop: 44695, Start Num: 25
Candidate Starts for MyraDee_81:
(Start: 25 @45138 has 15 MA's), (33, 45096), (34, 45090), (35, 45081), (66, 44985), (76, 44919), (122, 44748),

Gene: Nabi_71 Start: 47829, Stop: 47416, Start Num: 49
Candidate Starts for Nabi_71:
(Start: 46 @47835 has 2 MA's), (Start: 49 @47829 has 55 MA's), (64, 47775), (77, 47679), (88, 47637), (90, 47628), (106, 47559), (123, 47460),

Gene: Nanodon_70 Start: 46931, Stop: 46518, Start Num: 49
Candidate Starts for Nanodon_70:
(3, 47174), (12, 47120), (16, 47072), (20, 47045), (Start: 49 @46931 has 55 MA's), (77, 46781), (90, 46730), (106, 46661), (129, 46532),

Gene: Nerdos_67 Start: 46263, Stop: 45856, Start Num: 50
Candidate Starts for Nerdos_67:
(10, 46455), (16, 46404), (Start: 50 @46263 has 46 MA's), (51, 46257), (Start: 54 @46245 has 1 MA's), (64, 46209), (79, 46104), (88, 46074), (123, 45900), (126, 45888), (129, 45870),

Gene: Nishikigoi_70 Start: 45535, Stop: 45110, Start Num: 49
Candidate Starts for Nishikigoi_70:
(23, 45619), (Start: 49 @45535 has 55 MA's), (77, 45382), (106, 45253), (113, 45214), (128, 45133),

Gene: Oliynyk_70 Start: 46674, Stop: 46267, Start Num: 50
Candidate Starts for Oliynyk_70:
(10, 46875), (16, 46824), (Start: 50 @46674 has 46 MA's), (51, 46668), (Start: 54 @46656 has 1 MA's), (64, 46620), (77, 46524), (79, 46515), (88, 46485), (109, 46395), (123, 46311), (129, 46281),

Gene: Omar_74 Start: 44684, Stop: 44262, Start Num: 50
Candidate Starts for Omar_74:
(Start: 50 @44684 has 46 MA's), (51, 44678), (Start: 54 @44666 has 1 MA's), (79, 44525), (88, 44483), (106, 44405), (118, 44354), (126, 44294),

Gene: Onyinye_60 Start: 44029, Stop: 44508, Start Num: 25
Candidate Starts for Onyinye_60:
(Start: 22 @44011 has 2 MA's), (Start: 25 @44029 has 15 MA's), (34, 44077), (35, 44086), (Start: 42 @44113 has 3 MA's), (56, 44149), (59, 44158), (70, 44227), (72, 44242), (75, 44260), (84, 44305), (90, 44329), (94, 44341), (122, 44455), (123, 44464), (129, 44494),

Gene: Ozzie_68 Start: 46656, Stop: 46249, Start Num: 50

Candidate Starts for Ozzie_68:
(10, 46848), (16, 46797), (Start: 50 @46656 has 46 MA's), (51, 46650), (Start: 54 @46638 has 1 MA's), (64, 46602), (77, 46506), (79, 46497), (88, 46467), (123, 46293), (126, 46281), (129, 46263),

Gene: OzzyJ_70 Start: 48209, Stop: 47793, Start Num: 49
Candidate Starts for OzzyJ_70:
(18, 48341), (Start: 49 @48209 has 55 MA's), (77, 48056), (90, 48005), (106, 47936),

Gene: PR_77 Start: 55622, Stop: 56104, Start Num: 25
Candidate Starts for PR_77:
(Start: 25 @55622 has 15 MA's), (32, 55658), (33, 55667), (35, 55682), (Start: 52 @55733 has 4 MA's), (63, 55763), (65, 55775), (70, 55811), (76, 55856), (126, 56072), (129, 56090), (130, 56093),

Gene: Pablito_69 Start: 44922, Stop: 44506, Start Num: 49
Candidate Starts for Pablito_69:
(Start: 49 @44922 has 55 MA's), (58, 44892), (88, 44727),

Gene: Paedore_74 Start: 47422, Stop: 47006, Start Num: 50
Candidate Starts for Paedore_74:
(Start: 50 @47422 has 46 MA's), (97, 47188), (106, 47149), (123, 47050),

Gene: Paolo_74 Start: 46593, Stop: 46171, Start Num: 50
Candidate Starts for Paolo_74:
(Start: 50 @46593 has 46 MA's), (51, 46587), (Start: 54 @46575 has 1 MA's), (90, 46383), (106, 46314), (109, 46302), (126, 46203),

Gene: Pavo_73 Start: 46535, Stop: 46125, Start Num: 50
Candidate Starts for Pavo_73:
(Start: 50 @46535 has 46 MA's), (77, 46388), (106, 46268), (123, 46169), (126, 46157), (129, 46139),

Gene: Phettuccine_68 Start: 46264, Stop: 45857, Start Num: 50
Candidate Starts for Phettuccine_68:
(10, 46456), (16, 46405), (Start: 50 @46264 has 46 MA's), (51, 46258), (Start: 54 @46246 has 1 MA's), (64, 46210), (77, 46114), (79, 46105), (88, 46075), (123, 45901), (126, 45889), (129, 45871),

Gene: Provolone_73 Start: 46676, Stop: 46266, Start Num: 50
Candidate Starts for Provolone_73:
(Start: 50 @46676 has 46 MA's), (77, 46529), (106, 46409), (123, 46310), (126, 46298), (129, 46280),

Gene: Puginator_74 Start: 46641, Stop: 46219, Start Num: 50
Candidate Starts for Puginator_74:
(Start: 50 @46641 has 46 MA's), (51, 46635), (Start: 54 @46623 has 1 MA's), (90, 46431), (106, 46362),

Gene: QueenBeesly_87 Start: 49451, Stop: 49026, Start Num: 39
Candidate Starts for QueenBeesly_87:
(29, 49499), (Start: 39 @49451 has 21 MA's), (80, 49256), (81, 49250), (88, 49217), (123, 49070), (124, 49067), (129, 49040),

Gene: R4_73 Start: 46265, Stop: 45852, Start Num: 50
Candidate Starts for R4_73:
(Start: 50 @46265 has 46 MA's), (97, 46031), (106, 45992), (123, 45896),

Gene: Rana_71 Start: 47682, Stop: 47269, Start Num: 49
Candidate Starts for Rana_71:
(Start: 46 @47688 has 2 MA's), (Start: 49 @47682 has 55 MA's), (64, 47628), (77, 47532), (88, 47490), (90, 47481), (106, 47412), (123, 47313),

Gene: RedBear_68 Start: 48006, Stop: 47593, Start Num: 49
Candidate Starts for RedBear_68:
(16, 48138), (19, 48117), (27, 48060), (Start: 49 @48006 has 55 MA's), (64, 47952), (77, 47856), (90, 47805), (106, 47736),

Gene: RedRock_88 Start: 49617, Stop: 49192, Start Num: 39
Candidate Starts for RedRock_88:
(Start: 30 @49641 has 1 MA's), (Start: 39 @49617 has 21 MA's), (80, 49422), (81, 49416), (88, 49383), (124, 49233),

Gene: Rusticus_70 Start: 46765, Stop: 46358, Start Num: 50
Candidate Starts for Rusticus_70:
(10, 46966), (16, 46915), (20, 46888), (Start: 50 @46765 has 46 MA's), (51, 46759), (77, 46615), (79, 46606), (88, 46576), (109, 46486), (123, 46402), (126, 46390), (129, 46372),

Gene: Saftant_70 Start: 46404, Stop: 46009, Start Num: 50
Candidate Starts for Saftant_70:
(Start: 50 @46404 has 46 MA's), (51, 46398), (90, 46221), (94, 46197), (106, 46152), (123, 46053),

Gene: SarahRose_68 Start: 48276, Stop: 47860, Start Num: 49
Candidate Starts for SarahRose_68:
(Start: 49 @48276 has 55 MA's), (77, 48123), (90, 48072), (106, 48003),

Gene: SemperFi_87 Start: 49339, Stop: 48914, Start Num: 39
Candidate Starts for SemperFi_87:
(29, 49387), (Start: 39 @49339 has 21 MA's), (80, 49144), (81, 49138), (88, 49105), (123, 48958), (124, 48955), (129, 48928),

Gene: Sienna_41 Start: 33171, Stop: 33617, Start Num: 38
Candidate Starts for Sienna_41:
(23, 33096), (37, 33168), (Start: 38 @33171 has 7 MA's), (Start: 54 @33219 has 1 MA's), (82, 33369), (88, 33399), (89, 33405), (92, 33423), (101, 33456), (125, 33579), (130, 33606),

Gene: Snorlax_68 Start: 48301, Stop: 47885, Start Num: 49
Candidate Starts for Snorlax_68:
(Start: 49 @48301 has 55 MA's), (77, 48148), (90, 48097), (106, 48028),

Gene: SororFago_86 Start: 48617, Stop: 48171, Start Num: 25
Candidate Starts for SororFago_86:
(Start: 25 @48617 has 15 MA's), (33, 48575), (34, 48569), (Start: 42 @48533 has 3 MA's), (Start: 54 @48503 has 1 MA's), (66, 48464), (105, 48302), (122, 48224), (125, 48209), (129, 48185),

Gene: South40_67 Start: 48006, Stop: 47593, Start Num: 49
Candidate Starts for South40_67:
(16, 48138), (19, 48117), (27, 48060), (Start: 49 @48006 has 55 MA's), (64, 47952), (77, 47856), (90, 47805), (106, 47736),

Gene: SpeedDemon_1400 Start: 83731, Stop: 83333, Start Num: 42

Candidate Starts for SpeedDemon_1400:
(Start: 42 @83731 has 3 MA's), (63, 83674), (64, 83671), (65, 83662), (91, 83509), (93, 83500), (115, 83437), (127, 83359),

Gene: Speedwell_74 Start: 47114, Stop: 46701, Start Num: 50
Candidate Starts for Speedwell_74:
(Start: 50 @47114 has 46 MA's), (51, 47108), (77, 46964), (90, 46913), (94, 46889), (106, 46844), (126, 46733),

Gene: SqueakyClean_70 Start: 46271, Stop: 45846, Start Num: 49
Candidate Starts for SqueakyClean_70:
(Start: 49 @46271 has 55 MA's), (88, 46067), (100, 46013), (110, 45965), (129, 45860),

Gene: Sudan_72 Start: 46342, Stop: 45932, Start Num: 50
Candidate Starts for Sudan_72:
(Start: 50 @46342 has 46 MA's), (77, 46195), (106, 46075), (123, 45976), (126, 45964), (129, 45946),

Gene: Sujidade_71 Start: 48272, Stop: 47853, Start Num: 46
Candidate Starts for Sujidade_71:
(16, 48398), (Start: 46 @48272 has 2 MA's), (Start: 49 @48266 has 55 MA's), (64, 48212), (77, 48116), (90, 48065), (94, 48041), (106, 47996), (123, 47897),

Gene: Sunhee_88 Start: 47104, Stop: 46658, Start Num: 25
Candidate Starts for Sunhee_88:
(Start: 25 @47104 has 15 MA's), (Start: 54 @46990 has 1 MA's), (66, 46951), (67, 46942), (122, 46711), (123, 46702), (129, 46672),

Gene: SunkenRoot_71 Start: 46709, Stop: 46299, Start Num: 50
Candidate Starts for SunkenRoot_71:
(Start: 50 @46709 has 46 MA's), (77, 46562), (106, 46442), (123, 46343), (126, 46331), (129, 46313),

Gene: SunsetPointe_68 Start: 46663, Stop: 46256, Start Num: 50
Candidate Starts for SunsetPointe_68:
(10, 46855), (16, 46804), (Start: 50 @46663 has 46 MA's), (51, 46657), (Start: 54 @46645 has 1 MA's), (64, 46609), (77, 46513), (79, 46504), (88, 46474), (123, 46300), (126, 46288), (129, 46270),

Gene: Superstar_76 Start: 45702, Stop: 45277, Start Num: 49
Candidate Starts for Superstar_76:
(Start: 49 @45702 has 55 MA's), (85, 45507), (106, 45420), (113, 45381),

Gene: Suzy_41 Start: 33689, Stop: 34132, Start Num: 38
Candidate Starts for Suzy_41:
(23, 33614), (37, 33686), (Start: 38 @33689 has 7 MA's), (41, 33704), (Start: 49 @33722 has 55 MA's), (69, 33815), (78, 33872), (103, 33980), (121, 34064), (123, 34088), (125, 34094), (130, 34121),

Gene: TagePhighter_70 Start: 48276, Stop: 47860, Start Num: 49
Candidate Starts for TagePhighter_70:
(Start: 49 @48276 has 55 MA's), (77, 48123), (90, 48072), (106, 48003),

Gene: Taptic_79 Start: 55327, Stop: 55809, Start Num: 25
Candidate Starts for Taptic_79:
(Start: 25 @55327 has 15 MA's), (32, 55363), (33, 55372), (35, 55387), (Start: 52 @55438 has 4 MA's), (63, 55468), (65, 55480), (70, 55516), (76, 55561), (126, 55777), (129, 55795), (130, 55798),

Gene: TarsusIV_86 Start: 49301, Stop: 48876, Start Num: 39
Candidate Starts for TarsusIV_86:
(Start: 30 @49331 has 1 MA's), (Start: 39 @49301 has 21 MA's), (80, 49106), (81, 49100), (89, 49061), (123, 48920), (124, 48917), (129, 48890),

Gene: Tefunt_69 Start: 45449, Stop: 45024, Start Num: 49
Candidate Starts for Tefunt_69:
(23, 45533), (Start: 49 @45449 has 55 MA's), (77, 45296), (106, 45167), (113, 45128), (128, 45047),

Gene: Terapin_42 Start: 33095, Stop: 33541, Start Num: 38
Candidate Starts for Terapin_42:
(23, 33020), (37, 33092), (Start: 38 @33095 has 7 MA's), (Start: 54 @33143 has 1 MA's), (82, 33293), (88, 33323), (89, 33329), (92, 33347), (101, 33380), (125, 33503), (130, 33530),

Gene: Thestral_72 Start: 47423, Stop: 46998, Start Num: 49
Candidate Starts for Thestral_72:
(Start: 49 @47423 has 55 MA's), (64, 47366), (88, 47219), (90, 47210), (106, 47141),

Gene: TinaBelcher_70 Start: 47285, Stop: 46860, Start Num: 49
Candidate Starts for TinaBelcher_70:
(Start: 49 @47285 has 55 MA's), (64, 47228), (88, 47081), (90, 47072), (106, 47003), (126, 46892),

Gene: Toma_71 Start: 48127, Stop: 47714, Start Num: 49
Candidate Starts for Toma_71:
(16, 48259), (Start: 49 @48127 has 55 MA's), (64, 48073), (77, 47977), (88, 47935), (90, 47926), (106, 47857), (123, 47758),

Gene: Towmatter_127 Start: 77323, Stop: 76922, Start Num: 43
Candidate Starts for Towmatter_127:
(2, 77659), (4, 77581), (11, 77530), (14, 77524), (Start: 43 @77323 has 4 MA's), (70, 77221), (85, 77134), (102, 77065), (112, 77035), (114, 77029), (124, 76963),

Gene: Triste_69 Start: 48275, Stop: 47859, Start Num: 49
Candidate Starts for Triste_69:
(Start: 49 @48275 has 55 MA's), (77, 48122), (90, 48071), (106, 48002),

Gene: Triumph_72 Start: 46096, Stop: 45671, Start Num: 49
Candidate Starts for Triumph_72:
(13, 46294), (17, 46243), (Start: 49 @46096 has 55 MA's), (88, 45892), (106, 45814),

Gene: TrvxScott_69 Start: 47390, Stop: 46965, Start Num: 49
Candidate Starts for TrvxScott_69:
(Start: 49 @47390 has 55 MA's), (64, 47333), (88, 47186), (90, 47177), (106, 47108), (126, 46997),

Gene: TuanPN_66 Start: 48227, Stop: 47811, Start Num: 49
Candidate Starts for TuanPN_66:
(Start: 49 @48227 has 55 MA's), (77, 48074), (90, 48023), (106, 47954),

Gene: Unstoppable_68 Start: 46262, Stop: 45855, Start Num: 50
Candidate Starts for Unstoppable_68:
(10, 46454), (16, 46403), (Start: 50 @46262 has 46 MA's), (51, 46256), (Start: 54 @46244 has 1 MA's), (64, 46208), (77, 46112), (79, 46103), (88, 46073), (123, 45899), (126, 45887), (129, 45869),

Gene: Urza_76 Start: 48260, Stop: 47862, Start Num: 52
Candidate Starts for Urza_76:
(Start: 52 @48260 has 4 MA's), (57, 48245), (58, 48242), (90, 48071), (126, 47894),

Gene: VA6_87 Start: 49239, Stop: 48814, Start Num: 39
Candidate Starts for VA6_87:
(Start: 30 @49263 has 1 MA's), (Start: 39 @49239 has 21 MA's), (80, 49044), (81, 49038), (124, 48855), (129, 48828),

Gene: Vanseggelen_77 Start: 46192, Stop: 45782, Start Num: 50
Candidate Starts for Vanseggelen_77:
(Start: 50 @46192 has 46 MA's), (77, 46045), (90, 45994), (106, 45925), (130, 45793),

Gene: Verabelle_74 Start: 45631, Stop: 45221, Start Num: 50
Candidate Starts for Verabelle_74:
(Start: 50 @45631 has 46 MA's), (77, 45484), (90, 45433), (106, 45364), (130, 45232),

Gene: Verse_72 Start: 46973, Stop: 46563, Start Num: 50
Candidate Starts for Verse_72:
(Start: 50 @46973 has 46 MA's), (77, 46826), (106, 46706), (123, 46607), (126, 46595), (129, 46577),

Gene: VieEnRose_75 Start: 47997, Stop: 47602, Start Num: 52
Candidate Starts for VieEnRose_75:
(Start: 52 @47997 has 4 MA's), (58, 47982), (90, 47811), (126, 47634),

Gene: Werner_68 Start: 48273, Stop: 47857, Start Num: 49
Candidate Starts for Werner_68:
(Start: 49 @48273 has 55 MA's), (77, 48120), (90, 48069), (106, 48000),

Gene: Whatever_68 Start: 48298, Stop: 47882, Start Num: 49
Candidate Starts for Whatever_68:
(Start: 49 @48298 has 55 MA's), (77, 48145), (90, 48094), (106, 48025),

Gene: Yasdnil_68 Start: 48325, Stop: 47909, Start Num: 49
Candidate Starts for Yasdnil_68:
(Start: 49 @48325 has 55 MA's), (77, 48172), (90, 48121), (106, 48052),

Gene: Yosif_73 Start: 46919, Stop: 46539, Start Num: 53
Candidate Starts for Yosif_73:
(Start: 53 @46919 has 1 MA's), (55, 46910), (61, 46889), (90, 46748), (123, 46583),

Gene: Yvonnetastic_195 Start: 94338, Stop: 93922, Start Num: 43
Candidate Starts for Yvonnetastic_195:
(Start: 43 @94338 has 4 MA's), (69, 94236), (71, 94224), (77, 94179), (80, 94167), (92, 94101), (93, 94098), (125, 93960), (129, 93936), (130, 93933),

Gene: Zainub_74 Start: 46567, Stop: 46145, Start Num: 50
Candidate Starts for Zainub_74:
(Start: 50 @46567 has 46 MA's), (51, 46561), (Start: 54 @46549 has 1 MA's), (90, 46357), (106, 46288), (109, 46276), (126, 46177),

Gene: ZamZam_72 Start: 46716, Stop: 46321, Start Num: 50

Candidate Starts for ZamZam_72:
(Start: 50 @46716 has 46 MA's), (51, 46710), (90, 46533), (106, 46464), (123, 46365),

Gene: Zemlya_71 Start: 47803, Stop: 47384, Start Num: 46
Candidate Starts for Zemlya_71:
(3, 48028), (12, 47974), (16, 47929), (Start: 46 @47803 has 2 MA's), (Start: 49 @47797 has 55 MA's), (64, 47743), (77, 47647), (90, 47596), (106, 47527), (123, 47428),

Gene: phiCAM_68 Start: 47795, Stop: 47385, Start Num: 50
Candidate Starts for phiCAM_68:
(Start: 50 @47795 has 46 MA's), (77, 47648), (106, 47528), (111, 47501), (113, 47489), (123, 47429), (126, 47417),