

Pham 296448



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 296448 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296448 has 91 members, 10 are drafts.

Phages represented in each track:

- Track 1 : LordVader_48
- Track 2 : MisterCuddles_81, Girr_80, Doug_80, Ruby_78, Veteran_75, Corndog_25, Emma_87
- Track 3 : Jennelsea_73, Carcharodon_59, ShowerHandel_93, Velveteen_78, Frankie_77, Clank_38, Hotshotbaby7_53, Brookers_79, Plagueis_53, Demsculpinboyz_45, Parmesanjohn_59, Tessdabest_59, Mowgli_53, Melissauren88_84, Fruitloop_71, Smurph_59, Melville_64, Duplicity_57, Beakin_86, Ovechkin_51, Aggie_55, Martik_91, RonRayGun_35, Ibrahim_35, Venti_74
- Track 4 : Mantra_80, SiSi_79, DillTech15_87, YungJamal_25
- Track 5 : Mahavrat_84, Marmie_53, TinaBug_56, Sandalphon_88, Chuckly_89, Polkaroo_75, Gomashi_57, PinkYoshi_58, Coleslaw_45, BronnyJr_67, Zizzle_81, BQuat_45, Juniper1_83, Jolene_56, Halo_56, Neoh_45, ArcusAngelus_39
- Track 6 : Mwanjiwa_91
- Track 7 : Hamulus_55
- Track 8 : MilleniumForce_55
- Track 9 : Xula_65, Babsiella_69, Chevrolet_41, Silvy_55, ByChance_83, Annihilator_57, Grimmer_98, SilverChicken_47, Sparkdehlily_62, TDanisky_62, Minnie_87, Avani_41, EleanorGeorge_97, Bora_45, QueenHazel_64
- Track 10 : Fulbright_57, Pipsqueaks_60, Olga_59, Cerasum_78, Coco12_81, Phloss_57, Sarma624_83, Schnauzer_60, Silvafighter_60, BigPhil_77, Xerxes_59, Kingsley_88, Bartholomew_72, Cheese puff_48, Philonius_59, Gex_60
- Track 11 : Smooch_26
- Track 12 : Zakhe101_48
- Track 13 : GodPhather_86

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

The start number called the most often in the published annotations is 11, it was called in 27 of the 81 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aggie_55, Beakin_86, Brookers_79, Carcharodon_59, Clank_38, Demsculpinboyz_45, DillTech15_87, Duplicity_57, Frankie_77, Fruitloop_71, Hotshotbaby7_53, Ibrahim_35, Jennelsea_73, Mantra_80, Martik_91,

Melissauren88_84, Melville_64, Mowgli_53, Ovechkin_51, Parmesanjohn_59, Plagueis_53, RonRayGun_35, ShowerHandel_93, SiSi_79, Smurph_59, Tessdabest_59, Velveteen_78, Venti_74, YungJamal_25, Zakhe101_48,

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

- Annihilator_57, ArcusAngelus_39, Avani_41, BQuat_45, Babsiella_69, Bartholomew_72, BigPhil_77, Bora_45, BronnyJr_67, ByChance_83, Cerasum_78, CheesePuff_48, Chevrolet_41, Chuckly_89, Coco12_81, Coleslaw_45, Corndog_25, Doug_80, EleanorGeorge_97, Emma_87, Fulbright_57, Gex_60, Girr_80, GodPhather_86, Gomashi_57, Grimmer_98, Halo_56, Hamulus_55, Jolene_56, Juniper1_83, Kingsley_88, LordVader_48, Mahavrat_84, Marmie_53, MilleniumForce_55, Minnie_87, MisterCuddles_81, Mwanjiwa_91, Neoh_45, Olga_59, Philonius_59, Phloss_57, PinkYoshi_58, Pipsqueaks_60, Polkaroo_75, QueenHazel_64, Ruby_78, Sandalphon_88, Sarma624_83, Schnauzer_60, SilvaFighter_60, SilverChicken_47, Silvy_55, Smooch_26, Sparkdehlily_62, TDanisky_62, TinaBug_56, Veteran_75, Xerxes_59, Xula_65, Zizzle_81,

Genes that do not have the "Most Annotated" start:

-

Summary by start number:

Start 3:

- Found in 1 of 91 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mwanjiwa_91 (F1),

Start 4:

- Found in 76 of 91 (83.5%) of genes in pham
- Manual Annotations of this start: 15 of 81
- Called 22.4% of time when present
- Phage (with cluster) where this start called: Annihilator_57 (G1), Avani_41 (F2), Babsiella_69 (I1), Bora_45 (O), ByChance_83 (F1), Chevrolet_41 (F1), EleanorGeorge_97 (F1), GodPhather_86 (W), Grimmer_98 (F1), MilleniumForce_55 (F1), Minnie_87 (F1), QueenHazel_64 (I1), SilverChicken_47 (F2), Silvy_55 (N), Sparkdehlily_62 (F1), TDanisky_62 (F1), Xula_65 (I1),

Start 7:

- Found in 1 of 91 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 81
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Smooch_26 (O),

Start 8:

- Found in 88 of 91 (96.7%) of genes in pham
- Manual Annotations of this start: 22 of 81
- Called 28.4% of time when present
- Phage (with cluster) where this start called: ArcusAngelus_39 (F1), BQuat_45 (G1), BronnyJr_67 (P1), Chuckly_89 (F1), Coleslaw_45 (G1), Corndog_25 (O), Doug_80 (F1), Emma_87 (F1), Girr_80 (F1), Gomashi_57 (G1), Halo_56 (G1), Hamulus_55 (F1), Jolene_56 (G1), Juniper1_83 (F1), Mahavrat_84 (F1), Marmie_53 (G1), MisterCuddles_81 (F1), Neoh_45 (G), PinkYoshi_58 (G1), Polkaroo_75 (P1),

Ruby_78 (F1), Sandalphon_88 (F1), TinaBug_56 (G1), Veteran_75 (F1), Zizzle_81 (F1),

Start 10:

- Found in 78 of 91 (85.7%) of genes in pham
- Manual Annotations of this start: 16 of 81
- Called 21.8% of time when present
- Phage (with cluster) where this start called: Bartholomew_72 (P1), BigPhil_77 (F1), Cerasum_78 (F1), Cheesepuff_48 (F1), Coco12_81 (F1), Fulbright_57 (N), Gex_60 (N), Kingsley_88 (F1), LordVader_48 (F), Olga_59 (G1), Philonius_59 (N), Phloss_57 (N), Pipsqueaks_60 (N), Sarma624_83 (F1), Schnauzer_60 (N), Silvafighter_60 (N), Xerxes_59 (N),

Start 11:

- Found in 91 of 91 (100.0%) of genes in pham
- Manual Annotations of this start: 27 of 81
- Called 33.0% of time when present
- Phage (with cluster) where this start called: Aggie_55 (N), Beakin_86 (F1), Brookers_79 (F1), Carcharodon_59 (N), Clank_38 (F), Demsculpinboyz_45 (F2), DillTech15_87 (F1), Duplicity_57 (N), Frankie_77 (F1), Fruitloop_71 (F1), Hotshotbaby7_53 (G1), Ibrahim_35 (T), Jennelsea_73 (F1), Mantra_80 (F1), Martik_91 (F1), Melissauren88_84 (F1), Melville_64 (N), Mowgli_53 (G1), Ovechkin_51 (F1), Parmesanjohn_59 (N), Plagueis_53 (G1), RonRayGun_35 (T), ShowerHandel_93 (F1), SiSi_79 (F1), Smurph_59 (N), Tessdabest_59 (N), Velveteen_78 (F1), Venti_74 (P1), YungJamal_25 (O), Zakhe101_48 (O),

Summary by clusters:

There are 11 clusters represented in this pham: F1, F2, P1, G, G1, F, I1, O, N, T, W,

Info for manual annotations of cluster F1:

- Start number 4 was manually annotated 7 times for cluster F1.
- Start number 8 was manually annotated 13 times for cluster F1.
- Start number 10 was manually annotated 6 times for cluster F1.
- Start number 11 was manually annotated 12 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 4 was manually annotated 1 time for cluster F2.
- Start number 11 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster G1:

- Start number 4 was manually annotated 1 time for cluster G1.
- Start number 8 was manually annotated 8 times for cluster G1.
- Start number 10 was manually annotated 1 time for cluster G1.
- Start number 11 was manually annotated 3 times for cluster G1.

Info for manual annotations of cluster I1:

- Start number 4 was manually annotated 3 times for cluster I1.

Info for manual annotations of cluster N:

- Start number 4 was manually annotated 1 time for cluster N.

- Start number 10 was manually annotated 8 times for cluster N.
- Start number 11 was manually annotated 6 times for cluster N.

Info for manual annotations of cluster O:

- Start number 4 was manually annotated 1 time for cluster O.
- Start number 7 was manually annotated 1 time for cluster O.
- Start number 8 was manually annotated 1 time for cluster O.
- Start number 11 was manually annotated 2 times for cluster O.

Info for manual annotations of cluster P1:

- Start number 10 was manually annotated 1 time for cluster P1.
- Start number 11 was manually annotated 1 time for cluster P1.

Info for manual annotations of cluster T:

- Start number 11 was manually annotated 2 times for cluster T.

Info for manual annotations of cluster W:

- Start number 4 was manually annotated 1 time for cluster W.

Gene Information:

Gene: Aggie_55 Start: 38539, Stop: 38871, Start Num: 11

Candidate Starts for Aggie_55:

(Start: 4 @38473 has 15 MA's), (Start: 8 @38500 has 22 MA's), (Start: 10 @38533 has 16 MA's),
(Start: 11 @38539 has 27 MA's), (12, 38575), (13, 38689),

Gene: Annihilator_57 Start: 39840, Stop: 40238, Start Num: 4

Candidate Starts for Annihilator_57:

(Start: 4 @39840 has 15 MA's), (Start: 8 @39867 has 22 MA's), (Start: 10 @39900 has 16 MA's),
(Start: 11 @39906 has 27 MA's), (12, 39942), (13, 40056),

Gene: ArcusAngelus_39 Start: 32098, Stop: 31727, Start Num: 8

Candidate Starts for ArcusAngelus_39:

(Start: 4 @32125 has 15 MA's), (Start: 8 @32098 has 22 MA's), (Start: 10 @32065 has 16 MA's),
(Start: 11 @32059 has 27 MA's), (12, 32023), (13, 31909),

Gene: Avani_41 Start: 29893, Stop: 29495, Start Num: 4

Candidate Starts for Avani_41:

(Start: 4 @29893 has 15 MA's), (Start: 8 @29866 has 22 MA's), (Start: 10 @29833 has 16 MA's),
(Start: 11 @29827 has 27 MA's), (12, 29791), (13, 29677),

Gene: BQuat_45 Start: 34998, Stop: 35369, Start Num: 8

Candidate Starts for BQuat_45:

(Start: 4 @34971 has 15 MA's), (Start: 8 @34998 has 22 MA's), (Start: 10 @35031 has 16 MA's),
(Start: 11 @35037 has 27 MA's), (12, 35073), (13, 35187),

Gene: Babsiella_69 Start: 43709, Stop: 44107, Start Num: 4

Candidate Starts for Babsiella_69:

(Start: 4 @43709 has 15 MA's), (Start: 8 @43736 has 22 MA's), (Start: 10 @43769 has 16 MA's),
(Start: 11 @43775 has 27 MA's), (12, 43811), (13, 43925),

Gene: Bartholomew_72 Start: 44151, Stop: 44489, Start Num: 10

Candidate Starts for Bartholomew_72:

(Start: 4 @44091 has 15 MA's), (Start: 8 @44118 has 22 MA's), (Start: 10 @44151 has 16 MA's),
(Start: 11 @44157 has 27 MA's), (12, 44193), (13, 44307),

Gene: Beakin_86 Start: 49592, Stop: 49924, Start Num: 11

Candidate Starts for Beakin_86:

(Start: 4 @49526 has 15 MA's), (Start: 8 @49553 has 22 MA's), (Start: 10 @49586 has 16 MA's),
(Start: 11 @49592 has 27 MA's), (12, 49628), (13, 49742),

Gene: BigPhil_77 Start: 45784, Stop: 46122, Start Num: 10

Candidate Starts for BigPhil_77:

(Start: 4 @45724 has 15 MA's), (Start: 8 @45751 has 22 MA's), (Start: 10 @45784 has 16 MA's),
(Start: 11 @45790 has 27 MA's), (12, 45826), (13, 45940),

Gene: Bora_45 Start: 24565, Stop: 24167, Start Num: 4

Candidate Starts for Bora_45:

(Start: 4 @24565 has 15 MA's), (Start: 8 @24538 has 22 MA's), (Start: 10 @24505 has 16 MA's),
(Start: 11 @24499 has 27 MA's), (12, 24463), (13, 24349),

Gene: BronnyJr_67 Start: 44659, Stop: 45030, Start Num: 8

Candidate Starts for BronnyJr_67:

(Start: 4 @44632 has 15 MA's), (Start: 8 @44659 has 22 MA's), (Start: 10 @44692 has 16 MA's),
(Start: 11 @44698 has 27 MA's), (12, 44734), (13, 44848),

Gene: Brookers_79 Start: 48741, Stop: 49073, Start Num: 11

Candidate Starts for Brookers_79:

(Start: 4 @48675 has 15 MA's), (Start: 8 @48702 has 22 MA's), (Start: 10 @48735 has 16 MA's),
(Start: 11 @48741 has 27 MA's), (12, 48777), (13, 48891),

Gene: ByChance_83 Start: 47974, Stop: 48372, Start Num: 4

Candidate Starts for ByChance_83:

(Start: 4 @47974 has 15 MA's), (Start: 8 @48001 has 22 MA's), (Start: 10 @48034 has 16 MA's),
(Start: 11 @48040 has 27 MA's), (12, 48076), (13, 48190),

Gene: Carcharodon_59 Start: 37883, Stop: 38215, Start Num: 11

Candidate Starts for Carcharodon_59:

(Start: 4 @37817 has 15 MA's), (Start: 8 @37844 has 22 MA's), (Start: 10 @37877 has 16 MA's),
(Start: 11 @37883 has 27 MA's), (12, 37919), (13, 38033),

Gene: Cerasum_78 Start: 45802, Stop: 46140, Start Num: 10

Candidate Starts for Cerasum_78:

(Start: 4 @45742 has 15 MA's), (Start: 8 @45769 has 22 MA's), (Start: 10 @45802 has 16 MA's),
(Start: 11 @45808 has 27 MA's), (12, 45844), (13, 45958),

Gene: Cheesepuff_48 Start: 34932, Stop: 35270, Start Num: 10

Candidate Starts for Cheesepuff_48:

(Start: 4 @34872 has 15 MA's), (Start: 8 @34899 has 22 MA's), (Start: 10 @34932 has 16 MA's),
(Start: 11 @34938 has 27 MA's), (12, 34974), (13, 35088),

Gene: Chevrolet_41 Start: 32126, Stop: 31728, Start Num: 4

Candidate Starts for Chevrolet_41:

(Start: 4 @32126 has 15 MA's), (Start: 8 @32099 has 22 MA's), (Start: 10 @32066 has 16 MA's),
(Start: 11 @32060 has 27 MA's), (12, 32024), (13, 31910),

Gene: Chuckly_89 Start: 49034, Stop: 49405, Start Num: 8

Candidate Starts for Chuckly_89:

(Start: 4 @49007 has 15 MA's), (Start: 8 @49034 has 22 MA's), (Start: 10 @49067 has 16 MA's),
(Start: 11 @49073 has 27 MA's), (12, 49109), (13, 49223),

Gene: Clank_38 Start: 30935, Stop: 30603, Start Num: 11

Candidate Starts for Clank_38:

(Start: 4 @31001 has 15 MA's), (Start: 8 @30974 has 22 MA's), (Start: 10 @30941 has 16 MA's),
(Start: 11 @30935 has 27 MA's), (12, 30899), (13, 30785),

Gene: Coco12_81 Start: 49859, Stop: 50197, Start Num: 10

Candidate Starts for Coco12_81:

(Start: 4 @49799 has 15 MA's), (Start: 8 @49826 has 22 MA's), (Start: 10 @49859 has 16 MA's),
(Start: 11 @49865 has 27 MA's), (12, 49901), (13, 50015),

Gene: Coleslaw_45 Start: 34998, Stop: 35369, Start Num: 8

Candidate Starts for Coleslaw_45:

(Start: 4 @34971 has 15 MA's), (Start: 8 @34998 has 22 MA's), (Start: 10 @35031 has 16 MA's),
(Start: 11 @35037 has 27 MA's), (12, 35073), (13, 35187),

Gene: Corndog_25 Start: 11029, Stop: 11334, Start Num: 8

Candidate Starts for Corndog_25:

(Start: 8 @11029 has 22 MA's), (9, 11059), (Start: 11 @11068 has 27 MA's), (12, 11104), (13, 11218),
(14, 11278),

Gene: Demsculpinboyz_45 Start: 30025, Stop: 29693, Start Num: 11

Candidate Starts for Demsculpinboyz_45:

(Start: 4 @30091 has 15 MA's), (Start: 8 @30064 has 22 MA's), (Start: 10 @30031 has 16 MA's),
(Start: 11 @30025 has 27 MA's), (12, 29989), (13, 29875),

Gene: DillTech15_87 Start: 48877, Stop: 49143, Start Num: 11

Candidate Starts for DillTech15_87:

(Start: 8 @48838 has 22 MA's), (9, 48868), (Start: 11 @48877 has 27 MA's), (12, 48913), (13, 49027),
(14, 49087),

Gene: Doug_80 Start: 49682, Stop: 49987, Start Num: 8

Candidate Starts for Doug_80:

(Start: 8 @49682 has 22 MA's), (9, 49712), (Start: 11 @49721 has 27 MA's), (12, 49757), (13, 49871),
(14, 49931),

Gene: Duplicity_57 Start: 37140, Stop: 37472, Start Num: 11

Candidate Starts for Duplicity_57:

(Start: 4 @37074 has 15 MA's), (Start: 8 @37101 has 22 MA's), (Start: 10 @37134 has 16 MA's),
(Start: 11 @37140 has 27 MA's), (12, 37176), (13, 37290),

Gene: EleanorGeorge_97 Start: 53726, Stop: 54124, Start Num: 4

Candidate Starts for EleanorGeorge_97:

(Start: 4 @53726 has 15 MA's), (Start: 8 @53753 has 22 MA's), (Start: 10 @53786 has 16 MA's),
(Start: 11 @53792 has 27 MA's), (12, 53828), (13, 53942),

Gene: Emma_87 Start: 48858, Stop: 49163, Start Num: 8
Candidate Starts for Emma_87:
(Start: 8 @48858 has 22 MA's), (9, 48888), (Start: 11 @48897 has 27 MA's), (12, 48933), (13, 49047),
(14, 49107),

Gene: Frankie_77 Start: 46272, Stop: 46604, Start Num: 11
Candidate Starts for Frankie_77:
(Start: 4 @46206 has 15 MA's), (Start: 8 @46233 has 22 MA's), (Start: 10 @46266 has 16 MA's),
(Start: 11 @46272 has 27 MA's), (12, 46308), (13, 46422),

Gene: Fruitloop_71 Start: 46844, Stop: 47176, Start Num: 11
Candidate Starts for Fruitloop_71:
(Start: 4 @46778 has 15 MA's), (Start: 8 @46805 has 22 MA's), (Start: 10 @46838 has 16 MA's),
(Start: 11 @46844 has 27 MA's), (12, 46880), (13, 46994),

Gene: Fulbright_57 Start: 36571, Stop: 36909, Start Num: 10
Candidate Starts for Fulbright_57:
(Start: 4 @36511 has 15 MA's), (Start: 8 @36538 has 22 MA's), (Start: 10 @36571 has 16 MA's),
(Start: 11 @36577 has 27 MA's), (12, 36613), (13, 36727),

Gene: Gex_60 Start: 37893, Stop: 38231, Start Num: 10
Candidate Starts for Gex_60:
(Start: 4 @37833 has 15 MA's), (Start: 8 @37860 has 22 MA's), (Start: 10 @37893 has 16 MA's),
(Start: 11 @37899 has 27 MA's), (12, 37935), (13, 38049),

Gene: Girr_80 Start: 49497, Stop: 49802, Start Num: 8
Candidate Starts for Girr_80:
(Start: 8 @49497 has 22 MA's), (9, 49527), (Start: 11 @49536 has 27 MA's), (12, 49572), (13, 49686),
(14, 49746),

Gene: GodPhather_86 Start: 58591, Stop: 58989, Start Num: 4
Candidate Starts for GodPhather_86:
(Start: 4 @58591 has 15 MA's), (Start: 8 @58618 has 22 MA's), (Start: 10 @58651 has 16 MA's),
(Start: 11 @58657 has 27 MA's), (12, 58693), (13, 58807), (15, 58924),

Gene: Gomashi_57 Start: 39877, Stop: 40248, Start Num: 8
Candidate Starts for Gomashi_57:
(Start: 4 @39850 has 15 MA's), (Start: 8 @39877 has 22 MA's), (Start: 10 @39910 has 16 MA's),
(Start: 11 @39916 has 27 MA's), (12, 39952), (13, 40066),

Gene: Grimmer_98 Start: 50986, Stop: 51348, Start Num: 4
Candidate Starts for Grimmer_98:
(Start: 4 @50986 has 15 MA's), (Start: 8 @51013 has 22 MA's), (Start: 10 @51046 has 16 MA's),
(Start: 11 @51052 has 27 MA's), (12, 51088), (13, 51202),

Gene: Halo_56 Start: 38943, Stop: 39314, Start Num: 8
Candidate Starts for Halo_56:
(Start: 4 @38916 has 15 MA's), (Start: 8 @38943 has 22 MA's), (Start: 10 @38976 has 16 MA's),
(Start: 11 @38982 has 27 MA's), (12, 39018), (13, 39132),

Gene: Hamulus_55 Start: 38658, Stop: 39029, Start Num: 8
Candidate Starts for Hamulus_55:

(Start: 8 @38658 has 22 MA's), (Start: 10 @38691 has 16 MA's), (Start: 11 @38697 has 27 MA's), (12, 38733), (13, 38847),

Gene: Hotshotbaby7_53 Start: 37726, Stop: 38049, Start Num: 11

Candidate Starts for Hotshotbaby7_53:

(Start: 4 @37660 has 15 MA's), (Start: 8 @37687 has 22 MA's), (Start: 10 @37720 has 16 MA's), (Start: 11 @37726 has 27 MA's), (12, 37762), (13, 37876),

Gene: Ibrahim_35 Start: 30289, Stop: 29957, Start Num: 11

Candidate Starts for Ibrahim_35:

(Start: 4 @30355 has 15 MA's), (Start: 8 @30328 has 22 MA's), (Start: 10 @30295 has 16 MA's), (Start: 11 @30289 has 27 MA's), (12, 30253), (13, 30139),

Gene: Jennelsea_73 Start: 47261, Stop: 47593, Start Num: 11

Candidate Starts for Jennelsea_73:

(Start: 4 @47195 has 15 MA's), (Start: 8 @47222 has 22 MA's), (Start: 10 @47255 has 16 MA's), (Start: 11 @47261 has 27 MA's), (12, 47297), (13, 47411),

Gene: Jolene_56 Start: 39111, Stop: 39473, Start Num: 8

Candidate Starts for Jolene_56:

(Start: 4 @39084 has 15 MA's), (Start: 8 @39111 has 22 MA's), (Start: 10 @39144 has 16 MA's), (Start: 11 @39150 has 27 MA's), (12, 39186), (13, 39300),

Gene: Juniper1_83 Start: 49552, Stop: 49887, Start Num: 8

Candidate Starts for Juniper1_83:

(Start: 4 @49525 has 15 MA's), (Start: 8 @49552 has 22 MA's), (Start: 10 @49585 has 16 MA's), (Start: 11 @49591 has 27 MA's), (12, 49627), (13, 49741),

Gene: Kingsley_88 Start: 52466, Stop: 52804, Start Num: 10

Candidate Starts for Kingsley_88:

(Start: 4 @52406 has 15 MA's), (Start: 8 @52433 has 22 MA's), (Start: 10 @52466 has 16 MA's), (Start: 11 @52472 has 27 MA's), (12, 52508), (13, 52622),

Gene: LordVader_48 Start: 32102, Stop: 32440, Start Num: 10

Candidate Starts for LordVader_48:

(Start: 4 @32045 has 15 MA's), (Start: 10 @32102 has 16 MA's), (Start: 11 @32108 has 27 MA's), (12, 32144), (13, 32258),

Gene: Mahavrat_84 Start: 48581, Stop: 48916, Start Num: 8

Candidate Starts for Mahavrat_84:

(Start: 4 @48554 has 15 MA's), (Start: 8 @48581 has 22 MA's), (Start: 10 @48614 has 16 MA's), (Start: 11 @48620 has 27 MA's), (12, 48656), (13, 48770),

Gene: Mantra_80 Start: 49108, Stop: 49374, Start Num: 11

Candidate Starts for Mantra_80:

(Start: 8 @49069 has 22 MA's), (9, 49099), (Start: 11 @49108 has 27 MA's), (12, 49144), (13, 49258), (14, 49318),

Gene: Marmie_53 Start: 37626, Stop: 37997, Start Num: 8

Candidate Starts for Marmie_53:

(Start: 4 @37599 has 15 MA's), (Start: 8 @37626 has 22 MA's), (Start: 10 @37659 has 16 MA's), (Start: 11 @37665 has 27 MA's), (12, 37701), (13, 37815),

Gene: Martik_91 Start: 53788, Stop: 54120, Start Num: 11
Candidate Starts for Martik_91:
(Start: 4 @53722 has 15 MA's), (Start: 8 @53749 has 22 MA's), (Start: 10 @53782 has 16 MA's),
(Start: 11 @53788 has 27 MA's), (12, 53824), (13, 53938),

Gene: Melissauren88_84 Start: 49284, Stop: 49616, Start Num: 11
Candidate Starts for Melissauren88_84:
(Start: 4 @49218 has 15 MA's), (Start: 8 @49245 has 22 MA's), (Start: 10 @49278 has 16 MA's),
(Start: 11 @49284 has 27 MA's), (12, 49320), (13, 49434),

Gene: Melville_64 Start: 37454, Stop: 37786, Start Num: 11
Candidate Starts for Melville_64:
(Start: 4 @37388 has 15 MA's), (Start: 8 @37415 has 22 MA's), (Start: 10 @37448 has 16 MA's),
(Start: 11 @37454 has 27 MA's), (12, 37490), (13, 37604),

Gene: MilleniumForce_55 Start: 39071, Stop: 39469, Start Num: 4
Candidate Starts for MilleniumForce_55:
(Start: 4 @39071 has 15 MA's), (Start: 8 @39098 has 22 MA's), (Start: 10 @39131 has 16 MA's),
(Start: 11 @39137 has 27 MA's), (13, 39287),

Gene: Minnie_87 Start: 53340, Stop: 53738, Start Num: 4
Candidate Starts for Minnie_87:
(Start: 4 @53340 has 15 MA's), (Start: 8 @53367 has 22 MA's), (Start: 10 @53400 has 16 MA's),
(Start: 11 @53406 has 27 MA's), (12, 53442), (13, 53556),

Gene: MisterCuddles_81 Start: 49497, Stop: 49802, Start Num: 8
Candidate Starts for MisterCuddles_81:
(Start: 8 @49497 has 22 MA's), (9, 49527), (Start: 11 @49536 has 27 MA's), (12, 49572), (13, 49686),
(14, 49746),

Gene: Mowgli_53 Start: 37665, Stop: 37997, Start Num: 11
Candidate Starts for Mowgli_53:
(Start: 4 @37599 has 15 MA's), (Start: 8 @37626 has 22 MA's), (Start: 10 @37659 has 16 MA's),
(Start: 11 @37665 has 27 MA's), (12, 37701), (13, 37815),

Gene: Mwanjiwa_91 Start: 51454, Stop: 51873, Start Num: 3
Candidate Starts for Mwanjiwa_91:
(3, 51454), (Start: 10 @51535 has 16 MA's), (Start: 11 @51541 has 27 MA's), (12, 51577), (13, 51691),

Gene: Neoh_45 Start: 34999, Stop: 35370, Start Num: 8
Candidate Starts for Neoh_45:
(Start: 4 @34972 has 15 MA's), (Start: 8 @34999 has 22 MA's), (Start: 10 @35032 has 16 MA's),
(Start: 11 @35038 has 27 MA's), (12, 35074), (13, 35188),

Gene: Olga_59 Start: 39909, Stop: 40247, Start Num: 10
Candidate Starts for Olga_59:
(Start: 4 @39849 has 15 MA's), (Start: 8 @39876 has 22 MA's), (Start: 10 @39909 has 16 MA's),
(Start: 11 @39915 has 27 MA's), (12, 39951), (13, 40065),

Gene: Ovechkin_51 Start: 37481, Stop: 37813, Start Num: 11
Candidate Starts for Ovechkin_51:
(Start: 4 @37415 has 15 MA's), (Start: 8 @37442 has 22 MA's), (Start: 10 @37475 has 16 MA's),
(Start: 11 @37481 has 27 MA's), (12, 37517), (13, 37631),

Gene: Parmesanjohn_59 Start: 37903, Stop: 38235, Start Num: 11

Candidate Starts for Parmesanjohn_59:

(Start: 4 @37837 has 15 MA's), (Start: 8 @37864 has 22 MA's), (Start: 10 @37897 has 16 MA's),
(Start: 11 @37903 has 27 MA's), (12, 37939), (13, 38053),

Gene: Philonius_59 Start: 38062, Stop: 38400, Start Num: 10

Candidate Starts for Philonius_59:

(Start: 4 @38002 has 15 MA's), (Start: 8 @38029 has 22 MA's), (Start: 10 @38062 has 16 MA's),
(Start: 11 @38068 has 27 MA's), (12, 38104), (13, 38218),

Gene: Phloss_57 Start: 37304, Stop: 37642, Start Num: 10

Candidate Starts for Phloss_57:

(Start: 4 @37244 has 15 MA's), (Start: 8 @37271 has 22 MA's), (Start: 10 @37304 has 16 MA's),
(Start: 11 @37310 has 27 MA's), (12, 37346), (13, 37460),

Gene: PinkYoshi_58 Start: 39867, Stop: 40238, Start Num: 8

Candidate Starts for PinkYoshi_58:

(Start: 4 @39840 has 15 MA's), (Start: 8 @39867 has 22 MA's), (Start: 10 @39900 has 16 MA's),
(Start: 11 @39906 has 27 MA's), (12, 39942), (13, 40056),

Gene: Pipsqueaks_60 Start: 37875, Stop: 38213, Start Num: 10

Candidate Starts for Pipsqueaks_60:

(Start: 4 @37815 has 15 MA's), (Start: 8 @37842 has 22 MA's), (Start: 10 @37875 has 16 MA's),
(Start: 11 @37881 has 27 MA's), (12, 37917), (13, 38031),

Gene: Plagueis_53 Start: 37485, Stop: 37817, Start Num: 11

Candidate Starts for Plagueis_53:

(Start: 4 @37419 has 15 MA's), (Start: 8 @37446 has 22 MA's), (Start: 10 @37479 has 16 MA's),
(Start: 11 @37485 has 27 MA's), (12, 37521), (13, 37635),

Gene: Polkaroo_75 Start: 46717, Stop: 47088, Start Num: 8

Candidate Starts for Polkaroo_75:

(Start: 4 @46690 has 15 MA's), (Start: 8 @46717 has 22 MA's), (Start: 10 @46750 has 16 MA's),
(Start: 11 @46756 has 27 MA's), (12, 46792), (13, 46906),

Gene: QueenHazel_64 Start: 42803, Stop: 43201, Start Num: 4

Candidate Starts for QueenHazel_64:

(Start: 4 @42803 has 15 MA's), (Start: 8 @42830 has 22 MA's), (Start: 10 @42863 has 16 MA's),
(Start: 11 @42869 has 27 MA's), (12, 42905), (13, 43019),

Gene: RonRayGun_35 Start: 30289, Stop: 29957, Start Num: 11

Candidate Starts for RonRayGun_35:

(Start: 4 @30355 has 15 MA's), (Start: 8 @30328 has 22 MA's), (Start: 10 @30295 has 16 MA's),
(Start: 11 @30289 has 27 MA's), (12, 30253), (13, 30139),

Gene: Ruby_78 Start: 49498, Stop: 49803, Start Num: 8

Candidate Starts for Ruby_78:

(Start: 8 @49498 has 22 MA's), (9, 49528), (Start: 11 @49537 has 27 MA's), (12, 49573), (13, 49687),
(14, 49747),

Gene: Sandalphon_88 Start: 52006, Stop: 52365, Start Num: 8

Candidate Starts for Sandalphon_88:

(Start: 4 @51979 has 15 MA's), (Start: 8 @52006 has 22 MA's), (Start: 10 @52039 has 16 MA's),
(Start: 11 @52045 has 27 MA's), (12, 52081), (13, 52195),

Gene: Sarma624_83 Start: 46478, Stop: 46816, Start Num: 10

Candidate Starts for Sarma624_83:

(Start: 4 @46418 has 15 MA's), (Start: 8 @46445 has 22 MA's), (Start: 10 @46478 has 16 MA's),
(Start: 11 @46484 has 27 MA's), (12, 46520), (13, 46634),

Gene: Schnauzer_60 Start: 37897, Stop: 38235, Start Num: 10

Candidate Starts for Schnauzer_60:

(Start: 4 @37837 has 15 MA's), (Start: 8 @37864 has 22 MA's), (Start: 10 @37897 has 16 MA's),
(Start: 11 @37903 has 27 MA's), (12, 37939), (13, 38053),

Gene: ShowerHandel_93 Start: 51978, Stop: 52310, Start Num: 11

Candidate Starts for ShowerHandel_93:

(Start: 4 @51912 has 15 MA's), (Start: 8 @51939 has 22 MA's), (Start: 10 @51972 has 16 MA's),
(Start: 11 @51978 has 27 MA's), (12, 52014), (13, 52128),

Gene: SiSi_79 Start: 48633, Stop: 48899, Start Num: 11

Candidate Starts for SiSi_79:

(Start: 8 @48594 has 22 MA's), (9, 48624), (Start: 11 @48633 has 27 MA's), (12, 48669), (13, 48783),
(14, 48843),

Gene: Silvafighter_60 Start: 37440, Stop: 37778, Start Num: 10

Candidate Starts for Silvafighter_60:

(Start: 4 @37380 has 15 MA's), (Start: 8 @37407 has 22 MA's), (Start: 10 @37440 has 16 MA's),
(Start: 11 @37446 has 27 MA's), (12, 37482), (13, 37596),

Gene: SilverChicken_47 Start: 31179, Stop: 30781, Start Num: 4

Candidate Starts for SilverChicken_47:

(Start: 4 @31179 has 15 MA's), (Start: 8 @31152 has 22 MA's), (Start: 10 @31119 has 16 MA's),
(Start: 11 @31113 has 27 MA's), (12, 31077), (13, 30963),

Gene: Silvy_55 Start: 38473, Stop: 38871, Start Num: 4

Candidate Starts for Silvy_55:

(Start: 4 @38473 has 15 MA's), (Start: 8 @38500 has 22 MA's), (Start: 10 @38533 has 16 MA's),
(Start: 11 @38539 has 27 MA's), (12, 38575), (13, 38689),

Gene: Smooch_26 Start: 12102, Stop: 12401, Start Num: 7

Candidate Starts for Smooch_26:

(1, 11931), (2, 11970), (5, 12093), (6, 12096), (Start: 7 @12102 has 1 MA's), (9, 12144), (Start: 11
@12153 has 27 MA's), (12, 12189), (13, 12303), (14, 12363),

Gene: Smurph_59 Start: 37903, Stop: 38235, Start Num: 11

Candidate Starts for Smurph_59:

(Start: 4 @37837 has 15 MA's), (Start: 8 @37864 has 22 MA's), (Start: 10 @37897 has 16 MA's),
(Start: 11 @37903 has 27 MA's), (12, 37939), (13, 38053),

Gene: Sparkdehlily_62 Start: 39634, Stop: 40032, Start Num: 4

Candidate Starts for Sparkdehlily_62:

(Start: 4 @39634 has 15 MA's), (Start: 8 @39661 has 22 MA's), (Start: 10 @39694 has 16 MA's),
(Start: 11 @39700 has 27 MA's), (12, 39736), (13, 39850),

Gene: TDanisky_62 Start: 39634, Stop: 40032, Start Num: 4

Candidate Starts for TDanisky_62:

(Start: 4 @39634 has 15 MA's), (Start: 8 @39661 has 22 MA's), (Start: 10 @39694 has 16 MA's),
(Start: 11 @39700 has 27 MA's), (12, 39736), (13, 39850),

Gene: Tessdabest_59 Start: 38036, Stop: 38368, Start Num: 11

Candidate Starts for Tessdabest_59:

(Start: 4 @37970 has 15 MA's), (Start: 8 @37997 has 22 MA's), (Start: 10 @38030 has 16 MA's),
(Start: 11 @38036 has 27 MA's), (12, 38072), (13, 38186),

Gene: TinaBug_56 Start: 38943, Stop: 39314, Start Num: 8

Candidate Starts for TinaBug_56:

(Start: 4 @38916 has 15 MA's), (Start: 8 @38943 has 22 MA's), (Start: 10 @38976 has 16 MA's),
(Start: 11 @38982 has 27 MA's), (12, 39018), (13, 39132),

Gene: Velveteen_78 Start: 46484, Stop: 46816, Start Num: 11

Candidate Starts for Velveteen_78:

(Start: 4 @46418 has 15 MA's), (Start: 8 @46445 has 22 MA's), (Start: 10 @46478 has 16 MA's),
(Start: 11 @46484 has 27 MA's), (12, 46520), (13, 46634),

Gene: Venti_74 Start: 44157, Stop: 44489, Start Num: 11

Candidate Starts for Venti_74:

(Start: 4 @44091 has 15 MA's), (Start: 8 @44118 has 22 MA's), (Start: 10 @44151 has 16 MA's),
(Start: 11 @44157 has 27 MA's), (12, 44193), (13, 44307),

Gene: Veteran_75 Start: 48462, Stop: 48767, Start Num: 8

Candidate Starts for Veteran_75:

(Start: 8 @48462 has 22 MA's), (9, 48492), (Start: 11 @48501 has 27 MA's), (12, 48537), (13, 48651),
(14, 48711),

Gene: Xerxes_59 Start: 37894, Stop: 38232, Start Num: 10

Candidate Starts for Xerxes_59:

(Start: 4 @37834 has 15 MA's), (Start: 8 @37861 has 22 MA's), (Start: 10 @37894 has 16 MA's),
(Start: 11 @37900 has 27 MA's), (12, 37936), (13, 38050),

Gene: Xula_65 Start: 43290, Stop: 43688, Start Num: 4

Candidate Starts for Xula_65:

(Start: 4 @43290 has 15 MA's), (Start: 8 @43317 has 22 MA's), (Start: 10 @43350 has 16 MA's),
(Start: 11 @43356 has 27 MA's), (12, 43392), (13, 43506),

Gene: YungJamal_25 Start: 10948, Stop: 11214, Start Num: 11

Candidate Starts for YungJamal_25:

(Start: 8 @10909 has 22 MA's), (9, 10939), (Start: 11 @10948 has 27 MA's), (12, 10984), (13, 11098),
(14, 11158),

Gene: Zakhe101_48 Start: 24855, Stop: 24523, Start Num: 11

Candidate Starts for Zakhe101_48:

(Start: 8 @24894 has 22 MA's), (9, 24864), (Start: 11 @24855 has 27 MA's), (12, 24819), (13, 24705),

Gene: Zizzle_81 Start: 50087, Stop: 50458, Start Num: 8

Candidate Starts for Zizzle_81:

(Start: 4 @50060 has 15 MA's), (Start: 8 @50087 has 22 MA's), (Start: 10 @50120 has 16 MA's),
(Start: 11 @50126 has 27 MA's), (12, 50162), (13, 50276),

