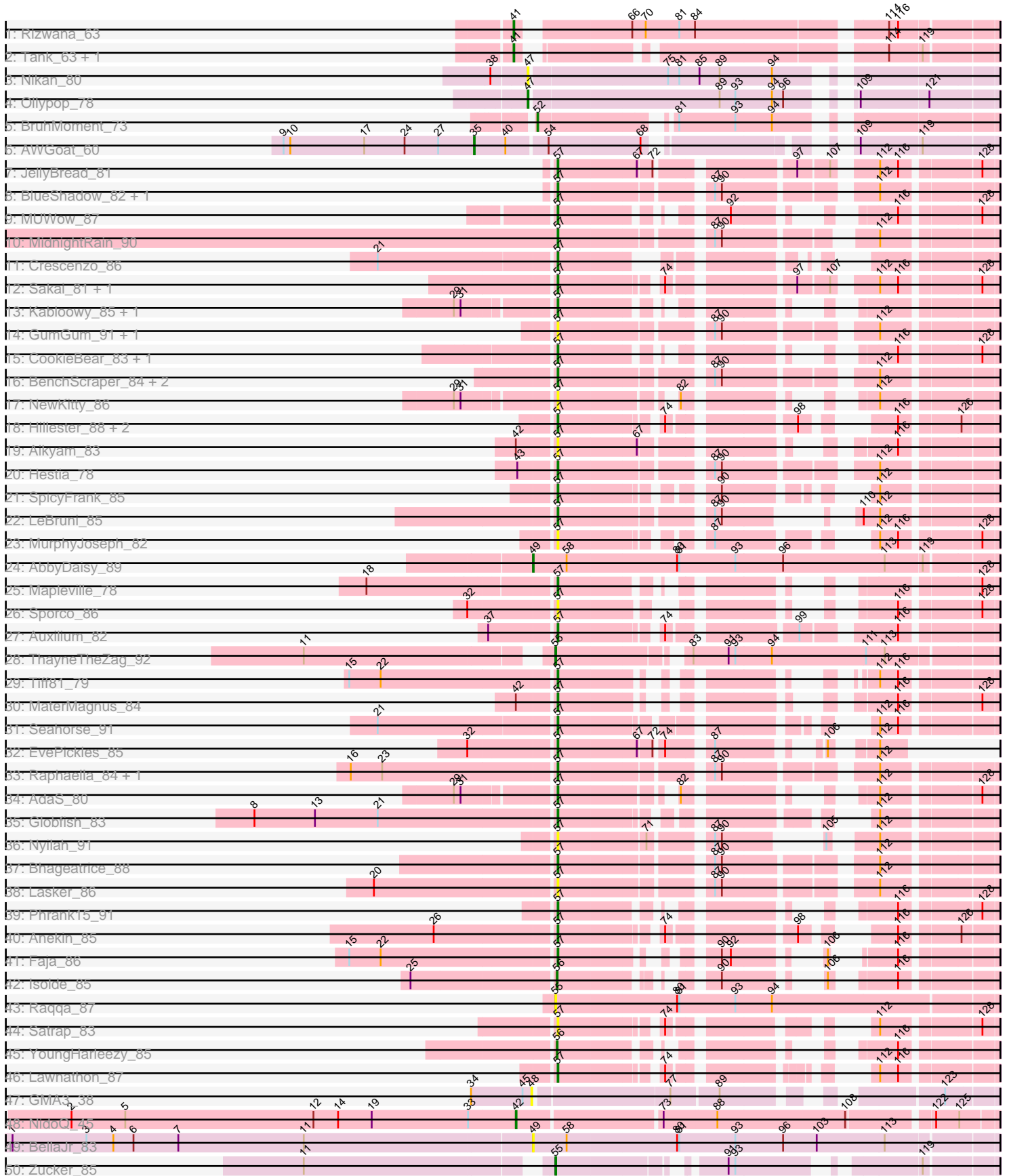


Pham 304992



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 304992 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304992 has 69 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Rizwana_63
- Track 2 : Tank_63, Wilde_65
- Track 3 : Nikan_80
- Track 4 : Ollypop_78
- Track 5 : BruhMoment_73
- Track 6 : AWGoat_60
- Track 7 : JellyBread_81
- Track 8 : BlueShadow_82, BillyTP_85
- Track 9 : MUWow_87
- Track 10 : MidnightRain_90
- Track 11 : Crescenzo_86
- Track 12 : Sakai_81, Gorpy_82
- Track 13 : Kabloowy_85, DarwinJr_88
- Track 14 : GumGum_91, CosmicBrownie_83
- Track 15 : CookieBear_83, SonDevVon_92
- Track 16 : BenchScraper_84, Windest_88, Richie_87
- Track 17 : NewKitty_86
- Track 18 : Hillester_88, RadFad_89, BasketStar_84
- Track 19 : Aikyam_83
- Track 20 : Hestia_78
- Track 21 : SpicyFrank_85
- Track 22 : LeBruni_85
- Track 23 : MurphyJoseph_82
- Track 24 : AbbyDaisy_89
- Track 25 : Mapleville_78
- Track 26 : Sporco_86
- Track 27 : Auxilium_82
- Track 28 : ThayneTheZag_92
- Track 29 : Tiff81_79
- Track 30 : MaterMagnus_84
- Track 31 : Seahorse_91
- Track 32 : EvePickles_85
- Track 33 : Raphaella_84, Vopal_85
- Track 34 : AdaS_80
- Track 35 : Globfish_83
- Track 36 : Nyilah_91
- Track 37 : Bhageatrice_88

- Track 38 : Lasker_86
- Track 39 : Phrank15_91
- Track 40 : Anekin_85
- Track 41 : Faja_86
- Track 42 : Isolde_85
- Track 43 : Raqqa_87
- Track 44 : Satrap_83
- Track 45 : YoungHarleezy_85
- Track 46 : Lawnathon_87
- Track 47 : GMA3_38
- Track 48 : NidoQ_45
- Track 49 : BellaJr_83
- Track 50 : Zucker_85
- Track 51 : Cassini_81
- Track 52 : Pitbull_59
- Track 53 : Hum25_60
- Track 54 : Commonplace_23
- Track 55 : Nonagon_23
- Track 56 : Magritte_49
- Track 57 : Cantare_51
- Track 58 : Wollypog_81

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

The start number called the most often in the published annotations is 57, it was called in 32 of the 51 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AdaS_80, Aikyam_83, Anekin_85, Auxilium_82, BasketStar_84, BenchScraper_84, Bhageatrice_88, BillyTP_85, BlueShadow_82, Cassini_81, CookieBear_83, CosmicBrownie_83, Crescenzo_86, DarwinJr_88, EvePickles_85, Faja_86, Globfish_83, Gorpy_82, GumGum_91, Hestia_78, Hillester_88, JellyBread_81, Kabloowy_85, Lasker_86, Lawnathon_87, LeBruni_85, MUWow_87, Mapleville_78, MaterMagnus_84, MidnightRain_90, MurphyJoseph_82, NewKitty_86, Nyilah_91, Phrank15_91, RadFad_89, Raphaella_84, Richie_87, Sakai_81, Satrap_83, Seahorse_91, SonDevVon_92, SpicyFrank_85, Sporco_86, Tiff81_79, Vopal_85, Windest_88,

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

- Magritte_49,

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

- AWGoat_60, AbbyDaisy_89, BellaJr_83, BruhMoment_73, Cantare_51, Commonplace_23, GMA3_38, Hum25_60, Isolde_85, NidoQ_45, Nikan_80, Nonagon_23, Ollypop_78, Pitbull_59, Raqqa_87, Rizwana_63, Tank_63, ThayneTheZag_92, Wilde_65, Wollypog_81, YoungHarleezy_85, Zucker_85,

Summary by start number:

Start 35:

- Found in 1 of 69 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AWGoat_60 (AP4),

Start 36:

- Found in 2 of 69 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Commonplace_23 (JD), Nonagon_23 (JD),

Start 39:

- Found in 1 of 69 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wollypog_81 (singleton),

Start 41:

- Found in 4 of 69 (5.8%) of genes in pham
- Manual Annotations of this start: 3 of 51
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Rizwana_63 (AP1), Tank_63 (AP1), Wilde_65 (AP1),

Start 42:

- Found in 3 of 69 (4.3%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 33.3% of time when present
- Phage (with cluster) where this start called: NidoQ_45 (FA),

Start 44:

- Found in 1 of 69 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Magritte_49 (singleton),

Start 47:

- Found in 2 of 69 (2.9%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nikan_80 (AP2), Ollypop_78 (AP2),

Start 48:

- Found in 1 of 69 (1.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA3_38 (DF2),

Start 49:

- Found in 2 of 69 (2.9%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present

- Phage (with cluster) where this start called: AbbyDaisy_89 (AY), BellaJr_83 (FN),

Start 52:

- Found in 1 of 69 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BruhMoment_73 (AP3),

Start 55:

- Found in 3 of 69 (4.3%) of genes in pham
- Manual Annotations of this start: 2 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Raqqa_87 (AY), ThayneTheZag_92 (AY), Zucker_85 (FN),

Start 56:

- Found in 2 of 69 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Isolde_85 (AY), YoungHarleezy_85 (AY),

Start 57:

- Found in 47 of 69 (68.1%) of genes in pham
- Manual Annotations of this start: 32 of 51
- Called 97.9% of time when present
- Phage (with cluster) where this start called: AdaS_80 (AY), Aikyam_83 (AY), Anekin_85 (AY), Auxilium_82 (AY), BasketStar_84 (AY), BenchScraper_84 (AY), Bhageatrice_88 (AY), BillyTP_85 (AY), BlueShadow_82 (AY), Cassini_81 (FN), CookieBear_83 (AY), CosmicBrownie_83 (AY), Crescenzo_86 (AY), DarwinJr_88 (AY), EvePickles_85 (AY), Faja_86 (AY), Globfish_83 (AY), Gorpy_82 (AY), GumGum_91 (AY), Hestia_78 (AY), Hillester_88 (AY), JellyBread_81 (AY), Kabloowy_85 (AY), Lasker_86 (AY), Lawnathon_87 (AY), LeBruni_85 (AY), MUWow_87 (AY), Mapleville_78 (AY), MaterMagnus_84 (AY), MidnightRain_90 (AY), MurphyJoseph_82 (AY), NewKitty_86 (AY), Nyilah_91 (AY), Phrank15_91 (AY), RadFad_89 (AY), Raphaella_84 (AY), Richie_87 (AY), Sakai_81 (AY), Satrap_83 (AY), Seahorse_91 (AY), SonDevVon_92 (AY), SpicyFrank_85 (AY), Sporco_86 (AY), Tiff81_79 (AY), Vopal_85 (AY), Windest_88 (AY),

Start 61:

- Found in 2 of 69 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hum25_60 (FQ), Pitbull_59 (FQ),

Start 76:

- Found in 1 of 69 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cantare_51 (singleton),

Summary by clusters:

There are 11 clusters represented in this pham: FQ, singleton, AP2, AP3, AP1, AP4, DF2, FA, JD, AY, FN,

Info for manual annotations of cluster AP1:

- Start number 41 was manually annotated 3 times for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 47 was manually annotated 1 time for cluster AP2.

Info for manual annotations of cluster AP3:

- Start number 52 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:

- Start number 35 was manually annotated 1 time for cluster AP4.

Info for manual annotations of cluster AY:

- Start number 49 was manually annotated 1 time for cluster AY.
- Start number 55 was manually annotated 1 time for cluster AY.
- Start number 56 was manually annotated 2 times for cluster AY.
- Start number 57 was manually annotated 32 times for cluster AY.

Info for manual annotations of cluster FA:

- Start number 42 was manually annotated 1 time for cluster FA.

Info for manual annotations of cluster FN:

- Start number 55 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster FQ:

- Start number 61 was manually annotated 2 times for cluster FQ.

Info for manual annotations of cluster JD:

- Start number 36 was manually annotated 2 times for cluster JD.

Gene Information:

Gene: AWGoat_60 Start: 44171, Stop: 43587, Start Num: 35

Candidate Starts for AWGoat_60:

(9, 44426), (10, 44417), (17, 44318), (24, 44264), (27, 44219), (Start: 35 @44171 has 1 MA's), (40, 44129), (54, 44078), (68, 43961), (109, 43760), (119, 43682),

Gene: AbbyDaisy_89 Start: 50820, Stop: 51422, Start Num: 49

Candidate Starts for AbbyDaisy_89:

(Start: 49 @50820 has 1 MA's), (58, 50865), (80, 51009), (81, 51012), (93, 51087), (96, 51150), (113, 51285), (119, 51333),

Gene: AdaS_80 Start: 44928, Stop: 45341, Start Num: 57

Candidate Starts for AdaS_80:

(29, 44811), (31, 44820), (Start: 57 @44928 has 32 MA's), (82, 45054), (112, 45204), (128, 45321),

Gene: Aikyam_83 Start: 45953, Stop: 46399, Start Num: 57

Candidate Starts for Aikyam_83:

(Start: 42 @45908 has 1 MA's), (Start: 57 @45953 has 32 MA's), (67, 46055), (116, 46286),

Gene: Anekin_85 Start: 48188, Stop: 48622, Start Num: 57

Candidate Starts for Anekin_85:

(26, 48032), (Start: 57 @48188 has 32 MA's), (74, 48305), (98, 48443), (116, 48509), (126, 48578),

Gene: Auxilium_82 Start: 45357, Stop: 45833, Start Num: 57

Candidate Starts for Auxilium_82:

(37, 45273), (Start: 57 @45357 has 32 MA's), (74, 45474), (99, 45618), (116, 45720),

Gene: BasketStar_84 Start: 47969, Stop: 48403, Start Num: 57

Candidate Starts for BasketStar_84:

(Start: 57 @47969 has 32 MA's), (74, 48086), (98, 48224), (116, 48290), (126, 48359),

Gene: BellaJr_83 Start: 47858, Stop: 48460, Start Num: 49

Candidate Starts for BellaJr_83:

(1, 47168), (3, 47267), (4, 47303), (6, 47330), (7, 47390), (11, 47558), (Start: 49 @47858 has 1 MA's), (58, 47903), (80, 48047), (81, 48050), (93, 48125), (96, 48188), (103, 48233), (113, 48323),

Gene: BenchScraper_84 Start: 46314, Stop: 46808, Start Num: 57

Candidate Starts for BenchScraper_84:

(Start: 57 @46314 has 32 MA's), (87, 46491), (90, 46500), (112, 46671),

Gene: Bhageatrice_88 Start: 50590, Stop: 51084, Start Num: 57

Candidate Starts for Bhageatrice_88:

(Start: 57 @50590 has 32 MA's), (87, 50767), (90, 50776), (112, 50947),

Gene: BillyTP_85 Start: 48420, Stop: 48914, Start Num: 57

Candidate Starts for BillyTP_85:

(Start: 57 @48420 has 32 MA's), (87, 48597), (90, 48606), (112, 48777),

Gene: BlueShadow_82 Start: 47675, Stop: 48169, Start Num: 57

Candidate Starts for BlueShadow_82:

(Start: 57 @47675 has 32 MA's), (87, 47852), (90, 47861), (112, 48032),

Gene: BruhMoment_73 Start: 49223, Stop: 48708, Start Num: 52

Candidate Starts for BruhMoment_73:

(Start: 52 @49223 has 1 MA's), (81, 49073), (93, 48998), (94, 48950),

Gene: Cantare_51 Start: 46110, Stop: 46487, Start Num: 76

Candidate Starts for Cantare_51:

(Start: 76 @46110 has 1 MA's), (78, 46116), (79, 46119), (102, 46278), (117, 46380), (122, 46407), (125, 46437), (128, 46467),

Gene: Cassini_81 Start: 46935, Stop: 47390, Start Num: 57

Candidate Starts for Cassini_81:

(32, 46830), (Start: 57 @46935 has 32 MA's), (87, 47073), (101, 47175), (116, 47277),

Gene: Commonplace_23 Start: 9319, Stop: 9924, Start Num: 36

Candidate Starts for Commonplace_23:

(28, 9274), (Start: 36 @9319 has 2 MA's), (64, 9472), (66, 9511), (93, 9628), (100, 9715), (120, 9835), (128, 9901),

Gene: CookieBear_83 Start: 46991, Stop: 47392, Start Num: 57

Candidate Starts for CookieBear_83:

(Start: 57 @46991 has 32 MA's), (116, 47279), (128, 47372),

Gene: CosmicBrownie_83 Start: 46516, Stop: 47010, Start Num: 57

Candidate Starts for CosmicBrownie_83:

(Start: 57 @46516 has 32 MA's), (87, 46693), (90, 46702), (112, 46873),

Gene: Crescenzo_86 Start: 49356, Stop: 49757, Start Num: 57

Candidate Starts for Crescenzo_86:

(21, 49128), (Start: 57 @49356 has 32 MA's),

Gene: DarwinJr_88 Start: 49470, Stop: 49871, Start Num: 57

Candidate Starts for DarwinJr_88:

(29, 49353), (31, 49362), (Start: 57 @49470 has 32 MA's),

Gene: EvePickles_85 Start: 48837, Stop: 49178, Start Num: 57

Candidate Starts for EvePickles_85:

(32, 48729), (Start: 57 @48837 has 32 MA's), (67, 48939), (72, 48957), (74, 48966), (87, 49014), (106, 49107), (112, 49143),

Gene: Faja_86 Start: 48359, Stop: 48745, Start Num: 57

Candidate Starts for Faja_86:

(15, 48092), (22, 48134), (Start: 57 @48359 has 32 MA's), (90, 48506), (92, 48518), (106, 48587), (116, 48632),

Gene: GMA3_38 Start: 40837, Stop: 40325, Start Num: 48

Candidate Starts for GMA3_38:

(34, 40918), (45, 40849), (48, 40837), (77, 40669), (89, 40609), (123, 40390),

Gene: Globfish_83 Start: 46114, Stop: 46545, Start Num: 57

Candidate Starts for Globfish_83:

(8, 45718), (13, 45799), (21, 45883), (Start: 57 @46114 has 32 MA's), (112, 46408),

Gene: Gorpy_82 Start: 48333, Stop: 48809, Start Num: 57

Candidate Starts for Gorpy_82:

(Start: 57 @48333 has 32 MA's), (74, 48450), (97, 48591), (107, 48630), (112, 48672), (116, 48696), (128, 48789),

Gene: GumGum_91 Start: 48480, Stop: 48974, Start Num: 57

Candidate Starts for GumGum_91:

(Start: 57 @48480 has 32 MA's), (87, 48657), (90, 48666), (112, 48837),

Gene: Hestia_78 Start: 45289, Stop: 45783, Start Num: 57

Candidate Starts for Hestia_78:

(43, 45244), (Start: 57 @45289 has 32 MA's), (87, 45466), (90, 45475), (112, 45646),

Gene: Hillester_88 Start: 48096, Stop: 48530, Start Num: 57

Candidate Starts for Hillester_88:

(Start: 57 @48096 has 32 MA's), (74, 48213), (98, 48351), (116, 48417), (126, 48486),

Gene: Hum25_60 Start: 34774, Stop: 35166, Start Num: 61

Candidate Starts for Hum25_60:

(Start: 41 @34702 has 3 MA's), (Start: 61 @34774 has 2 MA's), (63, 34792), (67, 34855), (87, 34930), (115, 35050), (116, 35053), (117, 35062),

Gene: Isolde_85 Start: 48621, Stop: 49019, Start Num: 56

Candidate Starts for Isolde_85:

(25, 48438), (Start: 56 @48621 has 2 MA's), (90, 48768), (106, 48849), (116, 48906),

Gene: JellyBread_81 Start: 47381, Stop: 47875, Start Num: 57

Candidate Starts for JellyBread_81:

(Start: 57 @47381 has 32 MA's), (67, 47483), (72, 47501), (97, 47657), (107, 47696), (112, 47738), (116, 47762), (128, 47855),

Gene: Kabloowy_85 Start: 48367, Stop: 48768, Start Num: 57

Candidate Starts for Kabloowy_85:

(29, 48250), (31, 48259), (Start: 57 @48367 has 32 MA's),

Gene: Lasker_86 Start: 48414, Stop: 48908, Start Num: 57

Candidate Starts for Lasker_86:

(20, 48180), (Start: 57 @48414 has 32 MA's), (87, 48591), (90, 48600), (112, 48771),

Gene: Lawnathon_87 Start: 47552, Stop: 47980, Start Num: 57

Candidate Starts for Lawnathon_87:

(Start: 57 @47552 has 32 MA's), (74, 47669), (112, 47843), (116, 47867),

Gene: LeBruni_85 Start: 47711, Stop: 48136, Start Num: 57

Candidate Starts for LeBruni_85:

(Start: 57 @47711 has 32 MA's), (87, 47888), (90, 47897), (110, 47978), (112, 47999),

Gene: MUWow_87 Start: 49154, Stop: 49555, Start Num: 57

Candidate Starts for MUWow_87:

(Start: 57 @49154 has 32 MA's), (92, 49316), (116, 49442), (128, 49535),

Gene: Magritte_49 Start: 48175, Stop: 48675, Start Num: 44

Candidate Starts for Magritte_49:

(Start: 44 @48175 has 1 MA's), (Start: 57 @48214 has 32 MA's), (59, 48229), (65, 48301), (87, 48409), (104, 48493), (118, 48571),

Gene: Mapleville_78 Start: 46363, Stop: 46764, Start Num: 57

Candidate Starts for Mapleville_78:

(18, 46129), (Start: 57 @46363 has 32 MA's), (128, 46744),

Gene: MaterMagnus_84 Start: 48125, Stop: 48532, Start Num: 57

Candidate Starts for MaterMagnus_84:

(Start: 42 @48080 has 1 MA's), (Start: 57 @48125 has 32 MA's), (116, 48419), (128, 48512),

Gene: MidnightRain_90 Start: 48881, Stop: 49366, Start Num: 57

Candidate Starts for MidnightRain_90:

(Start: 57 @48881 has 32 MA's), (87, 49058), (90, 49067), (112, 49229),

Gene: MurphyJoseph_82 Start: 46404, Stop: 46835, Start Num: 57

Candidate Starts for MurphyJoseph_82:

(Start: 57 @46404 has 32 MA's), (87, 46560), (112, 46698), (116, 46722), (128, 46815),

Gene: NewKitty_86 Start: 48783, Stop: 49196, Start Num: 57

Candidate Starts for NewKitty_86:

(29, 48666), (31, 48675), (Start: 57 @48783 has 32 MA's), (82, 48909), (112, 49059),

Gene: NidoQ_45 Start: 31660, Stop: 32259, Start Num: 42

Candidate Starts for NidoQ_45:

(2, 31066), (5, 31138), (12, 31390), (14, 31423), (19, 31468), (33, 31597), (Start: 42 @31660 has 1 MA's), (73, 31843), (88, 31912), (108, 32080), (122, 32182), (125, 32212),

Gene: Nikan_80 Start: 49613, Stop: 49059, Start Num: 47

Candidate Starts for Nikan_80:

(38, 49658), (Start: 47 @49613 has 1 MA's), (75, 49439), (81, 49424), (85, 49397), (89, 49370), (94, 49301),

Gene: Nonagon_23 Start: 9145, Stop: 9750, Start Num: 36

Candidate Starts for Nonagon_23:

(28, 9100), (Start: 36 @9145 has 2 MA's), (50, 9220), (53, 9235), (66, 9337), (93, 9454), (100, 9541), (120, 9661), (127, 9712), (128, 9727),

Gene: Nyilah_91 Start: 47700, Stop: 48131, Start Num: 57

Candidate Starts for Nyilah_91:

(Start: 57 @47700 has 32 MA's), (71, 47811), (87, 47877), (90, 47886), (105, 47955), (112, 47994),

Gene: Ollypop_78 Start: 50399, Stop: 49848, Start Num: 47

Candidate Starts for Ollypop_78:

(Start: 47 @50399 has 1 MA's), (89, 50156), (93, 50135), (94, 50087), (96, 50072), (109, 50021), (121, 49934),

Gene: Phrank15_91 Start: 48788, Stop: 49189, Start Num: 57

Candidate Starts for Phrank15_91:

(Start: 57 @48788 has 32 MA's), (116, 49076), (128, 49169),

Gene: Pitbull_59 Start: 33633, Stop: 34013, Start Num: 61

Candidate Starts for Pitbull_59:

(60, 33630), (Start: 61 @33633 has 2 MA's), (63, 33651), (69, 33717), (87, 33777), (90, 33786), (115, 33897), (116, 33900),

Gene: RadFad_89 Start: 48096, Stop: 48530, Start Num: 57

Candidate Starts for RadFad_89:

(Start: 57 @48096 has 32 MA's), (74, 48213), (98, 48351), (116, 48417), (126, 48486),

Gene: Raphaella_84 Start: 46653, Stop: 47147, Start Num: 57

Candidate Starts for Raphaella_84:

(16, 46386), (23, 46428), (Start: 57 @46653 has 32 MA's), (87, 46830), (90, 46839), (112, 47010),

Gene: Raqqa_87 Start: 48508, Stop: 49080, Start Num: 55

Candidate Starts for Raqqa_87:

(Start: 55 @48508 has 2 MA's), (80, 48667), (81, 48670), (93, 48745), (94, 48793),

Gene: Richie_87 Start: 48886, Stop: 49380, Start Num: 57

Candidate Starts for Richie_87:

(Start: 57 @48886 has 32 MA's), (87, 49063), (90, 49072), (112, 49243),

Gene: Rizwana_63 Start: 46128, Stop: 45559, Start Num: 41

Candidate Starts for Rizwana_63:

(Start: 41 @46128 has 3 MA's), (66, 46002), (70, 45984), (81, 45939), (84, 45918), (114, 45690), (116, 45678),

Gene: Sakai_81 Start: 47044, Stop: 47520, Start Num: 57

Candidate Starts for Sakai_81:

(Start: 57 @47044 has 32 MA's), (74, 47161), (97, 47302), (107, 47341), (112, 47383), (116, 47407), (128, 47500),

Gene: Satrap_83 Start: 47191, Stop: 47619, Start Num: 57

Candidate Starts for Satrap_83:

(Start: 57 @47191 has 32 MA's), (74, 47308), (112, 47482), (128, 47599),

Gene: Seahorse_91 Start: 52291, Stop: 52725, Start Num: 57

Candidate Starts for Seahorse_91:

(21, 52063), (Start: 57 @52291 has 32 MA's), (112, 52588), (116, 52612),

Gene: SonDevVon_92 Start: 47989, Stop: 48390, Start Num: 57

Candidate Starts for SonDevVon_92:

(Start: 57 @47989 has 32 MA's), (116, 48277), (128, 48370),

Gene: SpicyFrank_85 Start: 47210, Stop: 47635, Start Num: 57

Candidate Starts for SpicyFrank_85:

(Start: 57 @47210 has 32 MA's), (90, 47375), (112, 47498),

Gene: Sporco_86 Start: 48755, Stop: 49153, Start Num: 57

Candidate Starts for Sporco_86:

(32, 48647), (Start: 57 @48755 has 32 MA's), (116, 49040), (128, 49133),

Gene: Tank_63 Start: 46124, Stop: 45591, Start Num: 41

Candidate Starts for Tank_63:

(Start: 41 @46124 has 3 MA's), (114, 45722), (119, 45680),

Gene: ThayneTheZag_92 Start: 49112, Stop: 49648, Start Num: 55

Candidate Starts for ThayneTheZag_92:

(11, 48812), (Start: 55 @49112 has 2 MA's), (83, 49262), (91, 49307), (93, 49316), (94, 49364), (111, 49487), (113, 49511),

Gene: Tiff81_79 Start: 45794, Stop: 46192, Start Num: 57

Candidate Starts for Tiff81_79:

(15, 45527), (22, 45569), (Start: 57 @45794 has 32 MA's), (112, 46055), (116, 46079),

Gene: Vopal_85 Start: 48719, Stop: 49213, Start Num: 57

Candidate Starts for Vopal_85:

(16, 48452), (23, 48494), (Start: 57 @48719 has 32 MA's), (87, 48896), (90, 48905), (112, 49076),

Gene: Wilde_65 Start: 46423, Stop: 45890, Start Num: 41

Candidate Starts for Wilde_65:

(Start: 41 @46423 has 3 MA's), (114, 46021), (119, 45979),

Gene: Windest_88 Start: 46371, Stop: 46865, Start Num: 57

Candidate Starts for Windest_88:

(Start: 57 @46371 has 32 MA's), (87, 46548), (90, 46557), (112, 46728),

Gene: Wollypog_81 Start: 56236, Stop: 56814, Start Num: 39

Candidate Starts for Wollypog_81:

(30, 56194), (34, 56209), (Start: 39 @56236 has 1 MA's), (46, 56284), (51, 56296), (62, 56350), (86, 56476), (90, 56488), (95, 56560), (103, 56605), (113, 56668), (114, 56674), (124, 56752), (128, 56791),

Gene: YoungHarleezy_85 Start: 48259, Stop: 48660, Start Num: 56

Candidate Starts for YoungHarleezy_85:

(Start: 56 @48259 has 2 MA's), (116, 48547),

Gene: Zucker_85 Start: 49487, Stop: 49963, Start Num: 55

Candidate Starts for Zucker_85:

(11, 49187), (Start: 55 @49487 has 2 MA's), (91, 49670), (93, 49679), (119, 49874),