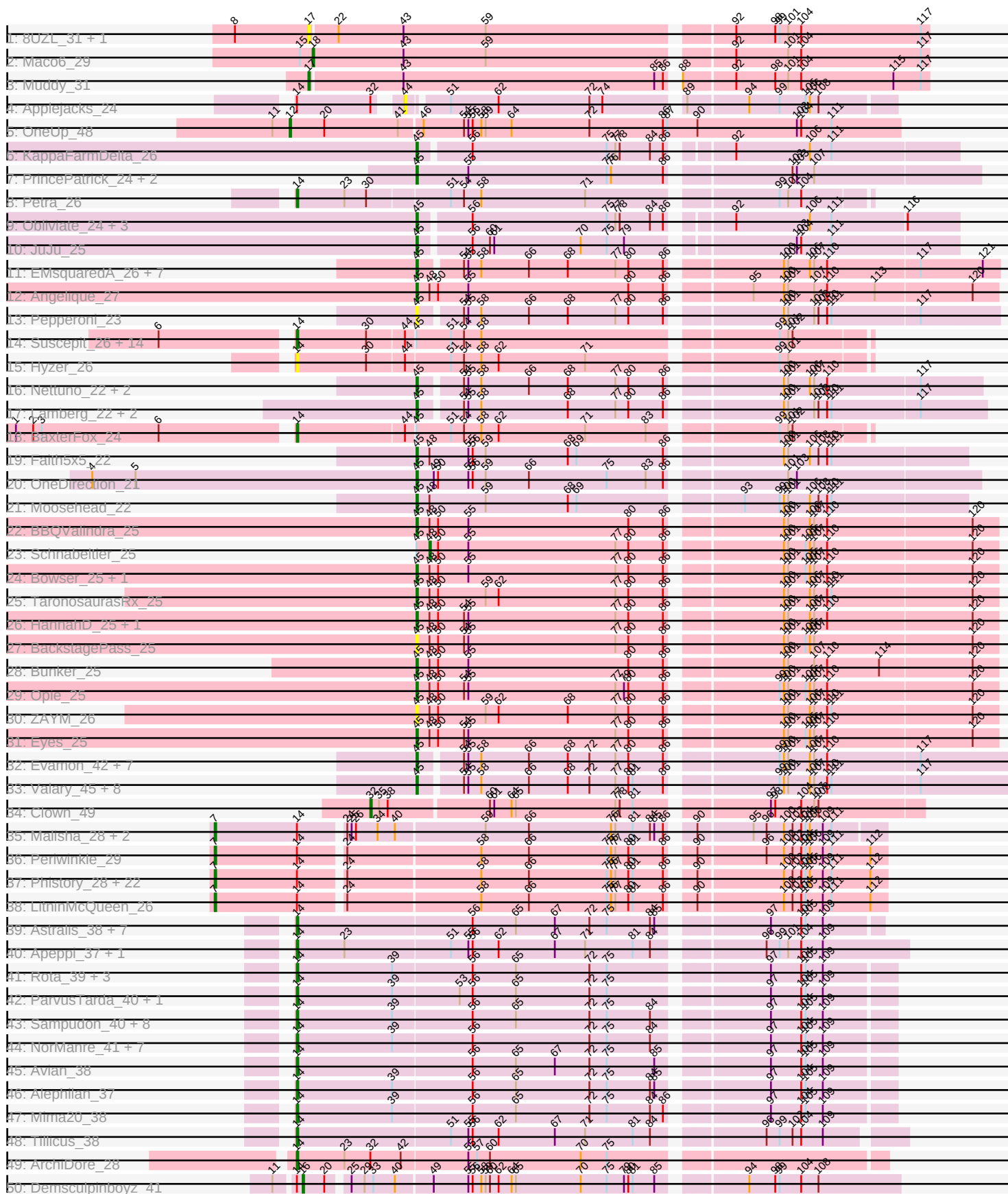
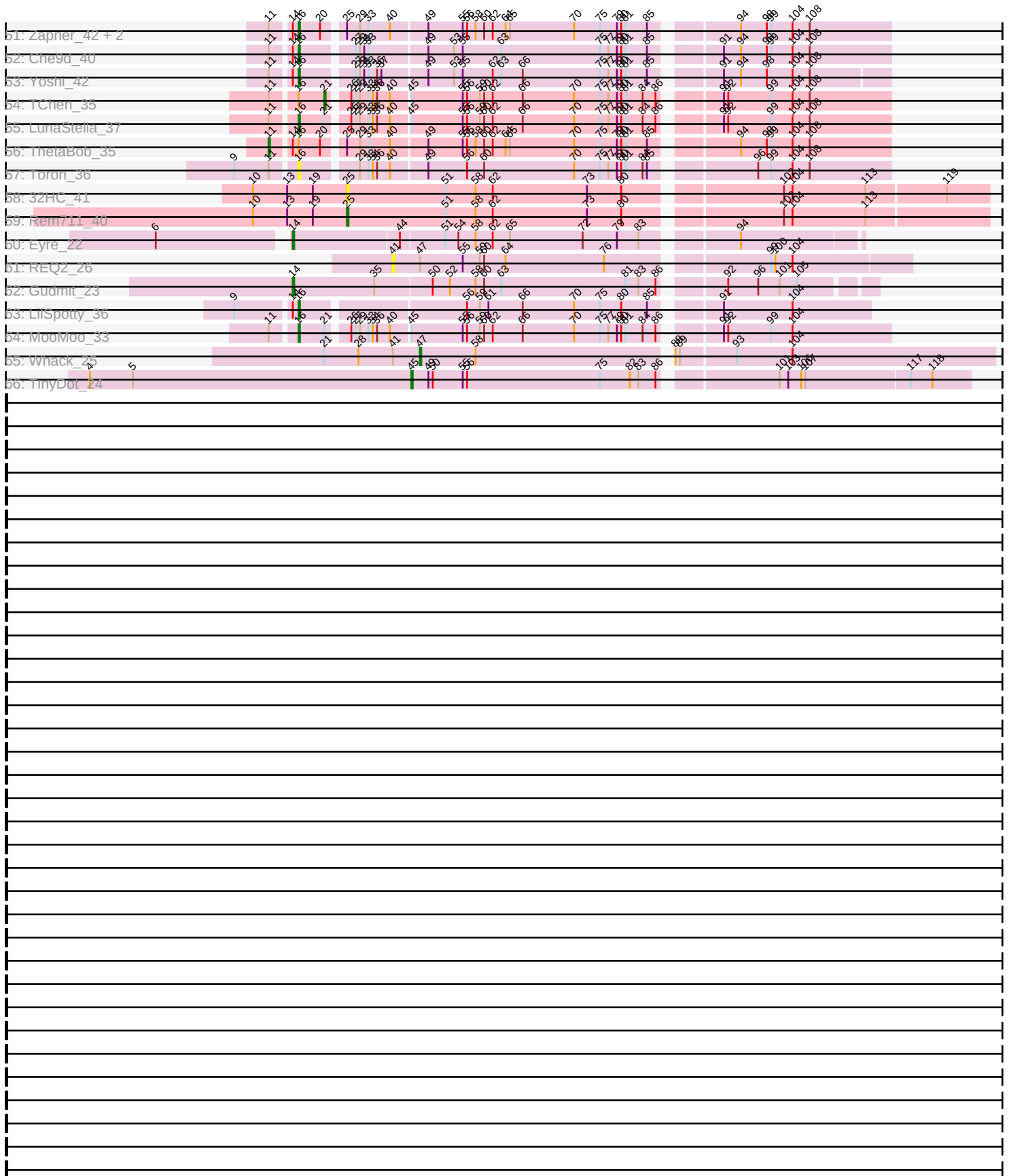


Pham 280139



Pham 280139



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 280139 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280139 has 167 members, 15 are drafts.

Phages represented in each track:

- Track 1 : 8UZL_31, FF47_31
- Track 2 : Maco6_29
- Track 3 : Muddy_31
- Track 4 : Applejacks_24
- Track 5 : OneUp_48
- Track 6 : KappaFarmDelta_26
- Track 7 : PrincePatrick_24, William_25, Fairfaxidum_24
- Track 8 : Petra_26
- Track 9 : Obliviate_24, ZiggyZoo_24, CarolAnn_25, Blino_25
- Track 10 : JuJu_25
- Track 11 : EMSquaredA_26, Pollux_26, Marteena_26, BritBrat_26, Lilas_26, Floral_26, Bradissa_26, EnalisNailo_26
- Track 12 : Angelique_27
- Track 13 : Pepperoni_23
- Track 14 : Suscepit_26, Agueybana_25, Zameen_26, BoyNamedSue_25, AlumE_25, Neobush_26, Antonio_26, PantheRoc_25, Maridalia_25, Eudoria_26, Trumpet_26, Tayonia_26, Manasvini_26, Yeezy_26, Kita_26
- Track 15 : Hyzer_26
- Track 16 : Nettuno_22, Matteo_22, Pickett_22
- Track 17 : Lamberg_22, EdnaMode_22, Lton_22
- Track 18 : BaxterFox_24
- Track 19 : Faith5x5_22
- Track 20 : OneDirection_21
- Track 21 : Moosehead_22
- Track 22 : BBQValindra_25
- Track 23 : Schnabeltier_25
- Track 24 : Bowser_25, MagicMan_25
- Track 25 : TaronosaurusRx_25
- Track 26 : HannahD_25, GEazy_25
- Track 27 : BackstagePass_25
- Track 28 : Bunker_25
- Track 29 : Opie_25
- Track 30 : ZAYM_26
- Track 31 : Eyes_25
- Track 32 : Evamon_42, Portcullis_44, Jambalaya_43, Halo3_43, Twister6_45, Salvador_42, Danyall_45, Savbucketdawg_43

- Track 33 : Valary_45, KimmyK_44, Wizard_42, Arri_46, VanDeWege_46, RogerDodger_46, CoveyB_46, Gezellig_42, CherryCola_46
- Track 34 : Clown_49
- Track 35 : Malisha_28, Squiddly_29, Spooky_27
- Track 36 : Periwinkle_29
- Track 37 : Phistory_28, Kamaru_27, Leroy_27, Getalong_28, Horus_27, Phabuloso_26, ShawBrad_27, Lutum_27, CheeseTouch_27, Kenna_26, Birdsong_26, Frickyeh_26, Holliday_27, Apricot_26, Budski_27, BENTherdunthat_27, Whitney_28, Asapag_27, BearBQ_26, Crater_25, Kuwabara_26, BotCity_27, MortyNRick_26
- Track 38 : LitninMcQueen_26
- Track 39 : Astralis_38, NovaSharks_40, Alyssamiracle_41, Jamemuya19_38, Stormer_40, RazorC_39, Rumi_40, Genamy16_41
- Track 40 : Apeppi_37, LuckyLeo_39
- Track 41 : Rota_39, Lila22_39, Erutan_40, Wojtek_39
- Track 42 : ParvusTarda_40, BirthdayBoy_41
- Track 43 : Sampudon_40, MoiGyank_42, Yikes_41, OtterstedtS21_40, Ranch_40, GretelLyn_40, Jalebi_39, Sadboi_41, Lambo_40
- Track 44 : NorManre_41, GOATification_41, Fulcrum_41, Gibbin_41, DoobyDoo_39, DaviePasture_40, Patos_41, Zany_39
- Track 45 : Avian_38
- Track 46 : Alephlan_37
- Track 47 : Mima20_38
- Track 48 : Tillicus_38
- Track 49 : ArchiDore_28
- Track 50 : Demsculpinboyz_41
- Track 51 : Zapner_42, Jabbawokkie_43, Avani_40
- Track 52 : Che9d_40
- Track 53 : Yoshi_42
- Track 54 : TChen_35
- Track 55 : LunaStella_37
- Track 56 : ThetaBob_35
- Track 57 : Toron_36
- Track 58 : 32HC_41
- Track 59 : Rem711_40
- Track 60 : Eyre_22
- Track 61 : REQ2_26
- Track 62 : Gudmit_23
- Track 63 : LilSpotty_36
- Track 64 : MooMoo_33
- Track 65 : Whack_25
- Track 66 : TinyDot_24

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

The start number called the most often in the published annotations is 14, it was called in 55 of the 152 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agueybana_25, Alephilan_37, AlumE_25, Alyssamiracle_41, Antonio_26, Apeppi_37, ArchiDore_28, Astralis_38, Avian_38, BaxterFox_24, BirthdayBoy_41, BoyNamedSue_25, DaviePasture_40, DoobyDoo_39, Erutan_40, Eudoria_26, Eyre_22, Fulcrum_41, GOATification_41, Genamy16_41, Gibbin_41, GretelLyn_40, Gudmit_23, Hyzer_26, Jalebi_39, Jamemuya19_38, Kita_26, Lambo_40, Lila22_39, LuckyLeo_39, Manasvini_26, Maridalia_25, Mima20_38, MoiGyank_42, Neobush_26, NorManre_41, NovaSharks_40, OtterstedtS21_40, PantheRoc_25, ParvusTarda_40, Patos_41, Petra_26, Ranch_40, RazorC_39, Rota_39, Rumi_40, Sadboi_41, Sampudon_40, Stormer_40, Suscepit_26, Tayonia_26, Tillicus_38, Trumpet_26, Wojtek_39, Yeezy_26, Yikes_41, Zameen_26, Zany_39,

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

- Applejacks_24, Apricot_26, Asapag_27, Avani_40, BENTherdunthat_27, BearBQ_26, Birdsong_26, BotCity_27, Budski_27, Che9d_40, CheeseTouch_27, Crater_25, Demsculpinboyz_41, Frickyeh_26, Getalong_28, Holliday_27, Horus_27, Jabbawokkie_43, Kamaru_27, Kenna_26, Kuwabara_26, Leroy_27, LilSpotty_36, LitninMcQueen_26, Lutum_27, Malisha_28, MortyNRick_26, Periwinkle_29, Phabuloso_26, Phistory_28, ShawBrad_27, Spooky_27, Squiddly_29, ThetaBob_35, Whitney_28, Yoshi_42, Zapner_42,

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

- 32HC_41, 8UZL_31, Angelique_27, Arri_46, BBQValindra_25, BackstagePass_25, Blino_25, Bowser_25, Bradissa_26, BritBrat_26, Bunker_25, CarolAnn_25, CherryCola_46, Clown_49, CoveyB_46, Danyall_45, EMsquaredA_26, EdnaMode_22, EnalisNailo_26, Evamon_42, Eyes_25, FF47_31, Fairfaxidum_24, Faith5x5_22, Floral_26, GEazy_25, Gezellig_42, Halo3_43, HannahD_25, Jambalaya_43, JuJu_25, KappaFarmDelta_26, KimmyK_44, Lamberg_22, Lilas_26, Lton_22, LunaStella_37, Maco6_29, MagicMan_25, Marteena_26, Matteo_22, MooMoo_33, Moosehead_22, Muddy_31, Nettuno_22, Obliviate_24, OneDirection_21, OneUp_48, Opie_25, Pepperoni_23, Pickett_22, Pollux_26, Portcullis_44, PrincePatrick_24, REQ2_26, Rem711_40, RogerDodger_46, Salvador_42, Savbucketdawg_43, Schnabeltier_25, TChen_35, TaronosaurusRx_25, TinyDot_24, Toron_36, Twister6_45, Valary_45, VanDeWege_46, Whack_25, William_25, Wizard_42, ZAYM_26, ZiggyZoo_24,

Summary by start number:

Start 7:

- Found in 28 of 167 (16.8%) of genes in pham
- Manual Annotations of this start: 26 of 152
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apricot_26 (DN3), Asapag_27 (DN1), BENTherdunthat_27 (DN1), BearBQ_26 (DN), Birdsong_26 (DN), BotCity_27 (DN), Budski_27 (DN), CheeseTouch_27 (DN1), Crater_25 (DN3), Frickyeh_26 (DN1), Getalong_28 (DN1), Holliday_27 (DN1), Horus_27 (DN1), Kamaru_27 (DN1), Kenna_26 (DN1), Kuwabara_26 (DN4), Leroy_27 (DN1), LitninMcQueen_26 (DN1), Lutum_27 (DN1), Malisha_28 (DN), MortyNRick_26 (DN), Periwinkle_29 (DN1), Phabuloso_26 (DN1), Phistory_28 (DN1), ShawBrad_27 (DN1), Spooky_27 (DN2), Squiddly_29 (DN2), Whitney_28 (DN1),

Start 11:

- Found in 12 of 167 (7.2%) of genes in pham
- Manual Annotations of this start: 1 of 152

- Called 8.3% of time when present
- Phage (with cluster) where this start called: ThetaBob_35 (F4),

Start 12:

- Found in 1 of 167 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 152
- Called 100.0% of time when present
- Phage (with cluster) where this start called: OneUp_48 (CQ2),

Start 14:

- Found in 95 of 167 (56.9%) of genes in pham
- Manual Annotations of this start: 55 of 152
- Called 61.1% of time when present
- Phage (with cluster) where this start called: Agueybana_25 (CZ1), Alephilan_37 (DV), AlumE_25 (CZ1), Alyssamiracle_41 (DV), Antonio_26 (CZ1), Apeppi_37 (DV), ArchiDore_28 (DW), Astralis_38 (DV), Avian_38 (DV), BaxterFox_24 (CZ3), BirthdayBoy_41 (DV), BoyNamedSue_25 (CZ1), DaviePasture_40 (DV), DoobyDoo_39 (DV), Erutan_40 (DV), Eudoria_26 (CZ1), Eyre_22 (singleton), Fulcrum_41 (DV), GOATification_41 (DV), Genamy16_41 (DV), Gibbin_41 (DV), GretelLyn_40 (DV), Gudmit_23 (singleton), Hyzer_26 (CZ1), Jalebi_39 (DV), Jamemuya19_38 (DV), Kita_26 (CZ1), Lambo_40 (DV), Lila22_39 (DV), LuckyLeo_39 (DV), Manasvini_26 (CZ1), Maridalia_25 (CZ1), Mima20_38 (DV), MoiGyank_42 (DV), Neobush_26 (CZ1), NorManre_41 (DV), NovaSharks_40 (DV), OtterstedtS21_40 (DV), PantheRoc_25 (CZ3), ParvusTarda_40 (DV), Patos_41 (DV), Petra_26 (CV), Ranch_40 (DV), RazorC_39 (DV), Rota_39 (DV), Rumi_40 (DV), Sadboi_41 (DV), Sampudon_40 (DV), Stormer_40 (DV), Suscepit_26 (CZ1), Tayonia_26 (CZ1), Tillicus_38 (DV), Trumpet_26 (CZ1), Wojtek_39 (DV), Yeezy_26 (CZ3), Yikes_41 (DV), Zameen_26 (CZ1), Zany_39 (DV),

Start 16:

- Found in 12 of 167 (7.2%) of genes in pham
- Manual Annotations of this start: 9 of 152
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Avani_40 (F2), Che9d_40 (F2), Demsculpinboyz_41 (F2), Jabbawokkie_43 (F2), LilSpotty_36 (singleton), LunaStella_37 (F4), MooMoo_33 (singleton), Toron_36 (F6), Yoshi_42 (F2), Zapner_42 (F2),

Start 17:

- Found in 3 of 167 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 152
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 8UZL_31 (AB), FF47_31 (AB), Muddy_31 (AB),

Start 18:

- Found in 1 of 167 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 152
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Maco6_29 (AB),

Start 21:

- Found in 4 of 167 (2.4%) of genes in pham

- Manual Annotations of this start: 1 of 152
- Called 25.0% of time when present
- Phage (with cluster) where this start called: TChen_35 (F4),

Start 25:

- Found in 10 of 167 (6.0%) of genes in pham
- Manual Annotations of this start: 1 of 152
- Called 20.0% of time when present
- Phage (with cluster) where this start called: 32HC_41 (Z), Rem711_40 (Z),

Start 32:

- Found in 3 of 167 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 152
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Clown_49 (DC2),

Start 41:

- Found in 3 of 167 (1.8%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: REQ2_26 (singleton),

Start 44:

- Found in 19 of 167 (11.4%) of genes in pham
- No Manual Annotations of this start.
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Applejacks_24 (CD),

Start 45:

- Found in 77 of 167 (46.1%) of genes in pham
- Manual Annotations of this start: 53 of 152
- Called 74.0% of time when present
- Phage (with cluster) where this start called: Angelique_27 (CY1), Arri_46 (DC1), BBQValindra_25 (DB), BackstagePass_25 (DB), Blino_25 (CV), Bowser_25 (DB), Bradissa_26 (CY1), BritBrat_26 (CY2), Bunker_25 (DB), CarolAnn_25 (CV), CherryCola_46 (DC1), CoveyB_46 (DC1), Danyall_45 (DC1), EMSquaredA_26 (CY1), EdnaMode_22 (CZ2), EnalisNailo_26 (CY1), Evamon_42 (DC1), Eyes_25 (DB), Fairfaxidum_24 (CV), Faith5x5_22 (CZ6), Floral_26 (CY1), GEazy_25 (DB), Gezellig_42 (DC1), Halo3_43 (DC1), HannahD_25 (DB), Jambalaya_43 (DC1), JuJu_25 (CV), KappaFarmDelta_26 (CV), KimmyK_44 (DC1), Lamberg_22 (CZ2), Lilas_26 (CY1), Lton_22 (CZ), MagicMan_25 (DB), Marteena_26 (CY1), Matteo_22 (CZ2), Moosehead_22 (CZ6), Nettuno_22 (CZ2), Obliviate_24 (CV), OneDirection_21 (CZ6), Opie_25 (DB), Pepperoni_23 (CZ), Pickett_22 (CZ2), Pollux_26 (CY1), Portcullis_44 (DC1), PrincePatrick_24 (CV), RogerDodger_46 (DC1), Salvador_42 (DC1), Savbucketdawg_43 (DC1), TaronosaurusRx_25 (DB), TinyDot_24 (singleton), Twister6_45 (DC1), Valary_45 (DC1), VanDeWege_46 (DC1), William_25 (CV), Wizard_42 (DC1), ZAYM_26 (DB), ZiggyZoo_24 (CV),

Start 47:

- Found in 2 of 167 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 152
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Whack_25 (singleton),

Start 48:

- Found in 15 of 167 (9.0%) of genes in pham
- Manual Annotations of this start: 1 of 152
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Schnabeltier_25 (DB),

Summary by clusters:

There are 26 clusters represented in this pham: DN, singleton, CZ2, CZ3, CZ1, CZ6, DV, DW, DN4, DN1, DN3, DN2, CQ2, CY2, CY1, AB, DB, CD, CZ, Z, DC2, CV, DC1, F2, F4, F6,

Info for manual annotations of cluster AB:

- Start number 17 was manually annotated 1 time for cluster AB.
- Start number 18 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster CQ2:

- Start number 12 was manually annotated 1 time for cluster CQ2.

Info for manual annotations of cluster CV:

- Start number 14 was manually annotated 1 time for cluster CV.
- Start number 45 was manually annotated 9 times for cluster CV.

Info for manual annotations of cluster CY1:

- Start number 45 was manually annotated 8 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 45 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ:

- Start number 45 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 14 was manually annotated 13 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 45 was manually annotated 5 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 14 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ6:

- Start number 45 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster DB:

- Start number 45 was manually annotated 9 times for cluster DB.
- Start number 48 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DC1:

- Start number 45 was manually annotated 16 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 32 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DN:

- Start number 7 was manually annotated 6 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 7 was manually annotated 15 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 7 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:

- Start number 7 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 7 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DV:

- Start number 14 was manually annotated 35 times for cluster DV.

Info for manual annotations of cluster DW:

- Start number 14 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster F2:

- Start number 16 was manually annotated 6 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 11 was manually annotated 1 time for cluster F4.
- Start number 16 was manually annotated 1 time for cluster F4.
- Start number 21 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster Z:

- Start number 25 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_41 Start: 30730, Stop: 31161, Start Num: 25

Candidate Starts for 32HC_41:

(10, 30664), (13, 30688), (19, 30706), (Start: 25 @30730 has 1 MA's), (51, 30799), (58, 30820), (62, 30832), (73, 30898), (80, 30922), (102, 31021), (104, 31027), (113, 31078), (119, 31132),

Gene: 8UZL_31 Start: 24782, Stop: 25192, Start Num: 17

Candidate Starts for 8UZL_31:

(8, 24731), (Start: 17 @24782 has 1 MA's), (22, 24800), (43, 24845), (59, 24902), (92, 25061), (98, 25088), (99, 25091), (101, 25097), (104, 25106), (117, 25187),

Gene: Agueybana_25 Start: 21812, Stop: 22186, Start Num: 14

Candidate Starts for Agueybana_25:

(6, 21728), (Start: 14 @21812 has 55 MA's), (30, 21860), (44, 21884), (Start: 45 @21890 has 53 MA's), (51, 21914), (54, 21923), (58, 21935), (99, 22127), (101, 22133), (102, 22136),

Gene: Alephilan_37 Start: 32269, Stop: 32664, Start Num: 14

Candidate Starts for Alephilan_37:

(Start: 14 @32269 has 55 MA's), (39, 32335), (56, 32389), (65, 32419), (72, 32470), (75, 32482), (84, 32512), (85, 32515), (97, 32581), (104, 32602), (105, 32605), (109, 32617),

Gene: AlumE_25 Start: 21811, Stop: 22185, Start Num: 14

Candidate Starts for AlumE_25:

(6, 21727), (Start: 14 @21811 has 55 MA's), (30, 21859), (44, 21883), (Start: 45 @21889 has 53 MA's), (51, 21913), (54, 21922), (58, 21934), (99, 22126), (101, 22132), (102, 22135),

Gene: Alyssamiracle_41 Start: 31366, Stop: 31752, Start Num: 14

Candidate Starts for Alyssamiracle_41:

(Start: 14 @31366 has 55 MA's), (56, 31486), (65, 31516), (67, 31543), (72, 31567), (75, 31579), (84, 31609), (85, 31612), (97, 31678), (104, 31699), (105, 31702), (109, 31714),

Gene: Angelique_27 Start: 22414, Stop: 22800, Start Num: 45

Candidate Starts for Angelique_27:

(Start: 45 @22414 has 53 MA's), (Start: 48 @22423 has 1 MA's), (50, 22429), (55, 22450), (80, 22561), (86, 22585), (95, 22633), (100, 22654), (101, 22657), (107, 22675), (110, 22684), (113, 22717), (120, 22783),

Gene: Antonio_26 Start: 21932, Stop: 22306, Start Num: 14

Candidate Starts for Antonio_26:

(6, 21848), (Start: 14 @21932 has 55 MA's), (30, 21980), (44, 22004), (Start: 45 @22010 has 53 MA's), (51, 22034), (54, 22043), (58, 22055), (99, 22247), (101, 22253), (102, 22256),

Gene: Apeppi_37 Start: 32448, Stop: 32855, Start Num: 14

Candidate Starts for Apeppi_37:

(Start: 14 @32448 has 55 MA's), (23, 32481), (51, 32553), (55, 32565), (56, 32568), (62, 32586), (67, 32625), (71, 32646), (81, 32679), (84, 32691), (96, 32757), (99, 32766), (101, 32772), (104, 32781), (109, 32796),

Gene: Applejacks_24 Start: 19251, Stop: 19565, Start Num: 44

Candidate Starts for Applejacks_24:

(Start: 14 @19188 has 55 MA's), (Start: 32 @19239 has 1 MA's), (44, 19251), (51, 19275), (62, 19308), (72, 19371), (74, 19380), (89, 19428), (94, 19467), (99, 19488), (105, 19506), (106, 19509), (108, 19515),

Gene: Apricot_26 Start: 20622, Stop: 21062, Start Num: 7

Candidate Starts for Apricot_26:

(Start: 7 @20622 has 26 MA's), (Start: 14 @20679 has 55 MA's), (24, 20706), (58, 20796), (66, 20829), (75, 20883), (76, 20886), (77, 20889), (80, 20898), (81, 20901), (86, 20922), (90, 20934), (100, 20991), (102, 20997), (104, 21003), (105, 21006), (106, 21009), (109, 21018), (111, 21024), (112, 21051),

Gene: ArchiDore_28 Start: 24132, Stop: 24521, Start Num: 14

Candidate Starts for ArchiDore_28:

(Start: 14 @24132 has 55 MA's), (23, 24165), (Start: 32 @24183 has 1 MA's), (42, 24204), (55, 24249), (57, 24255), (60, 24264), (70, 24327), (75, 24345),

Gene: Arri_46 Start: 35970, Stop: 36359, Start Num: 45

Candidate Starts for Arri_46:

(Start: 45 @35970 has 53 MA's), (54, 35997), (55, 36000), (58, 36009), (66, 36042), (68, 36069), (72, 36084), (77, 36102), (80, 36111), (81, 36114), (86, 36135), (99, 36201), (100, 36204), (101, 36207), (106, 36222), (107, 36225), (110, 36234), (111, 36237), (117, 36297),

Gene: Asapag_27 Start: 21064, Stop: 21504, Start Num: 7

Candidate Starts for Asapag_27:

(Start: 7 @21064 has 26 MA's), (Start: 14 @21121 has 55 MA's), (24, 21148), (58, 21238), (66, 21271), (75, 21325), (76, 21328), (77, 21331), (80, 21340), (81, 21343), (86, 21364), (90, 21376), (100, 21433), (102, 21439), (104, 21445), (105, 21448), (106, 21451), (109, 21460), (111, 21466), (112, 21493),

Gene: Astralis_38 Start: 30956, Stop: 31342, Start Num: 14

Candidate Starts for Astralis_38:

(Start: 14 @30956 has 55 MA's), (56, 31076), (65, 31106), (67, 31133), (72, 31157), (75, 31169), (84, 31199), (85, 31202), (97, 31268), (104, 31289), (105, 31292), (109, 31304),

Gene: Avani_40 Start: 28789, Stop: 29178, Start Num: 16

Candidate Starts for Avani_40:

(Start: 11 @28774 has 1 MA's), (Start: 14 @28786 has 55 MA's), (Start: 16 @28789 has 9 MA's), (20, 28804), (Start: 25 @28816 has 1 MA's), (29, 28825), (33, 28831), (40, 28846), (49, 28870), (55, 28894), (56, 28897), (58, 28903), (60, 28909), (62, 28915), (64, 28924), (65, 28927), (70, 28972), (75, 28990), (79, 29002), (80, 29005), (81, 29008), (85, 29023), (94, 29074), (98, 29092), (99, 29095), (104, 29110), (108, 29122),

Gene: Avian_38 Start: 31348, Stop: 31743, Start Num: 14

Candidate Starts for Avian_38:

(Start: 14 @31348 has 55 MA's), (56, 31468), (65, 31498), (67, 31525), (72, 31549), (75, 31561), (85, 31594), (97, 31660), (104, 31681), (105, 31684), (109, 31696),

Gene: BBQValindra_25 Start: 21046, Stop: 21432, Start Num: 45

Candidate Starts for BBQValindra_25:

(Start: 45 @21046 has 53 MA's), (Start: 48 @21055 has 1 MA's), (50, 21061), (55, 21082), (80, 21193), (86, 21217), (100, 21286), (101, 21289), (106, 21304), (107, 21307), (110, 21316), (120, 21415),

Gene: BENtherdunthat_27 Start: 21061, Stop: 21501, Start Num: 7

Candidate Starts for BENtherdunthat_27:

(Start: 7 @21061 has 26 MA's), (Start: 14 @21118 has 55 MA's), (24, 21145), (58, 21235), (66, 21268), (75, 21322), (76, 21325), (77, 21328), (80, 21337), (81, 21340), (86, 21361), (90, 21373), (100, 21430), (102, 21436), (104, 21442), (105, 21445), (106, 21448), (109, 21457), (111, 21463), (112, 21490),

Gene: BackstagePass_25 Start: 21178, Stop: 21564, Start Num: 45

Candidate Starts for BackstagePass_25:

(Start: 45 @21178 has 53 MA's), (Start: 48 @21187 has 1 MA's), (50, 21193), (54, 21211), (55, 21214), (77, 21316), (80, 21325), (86, 21349), (100, 21418), (101, 21421), (105, 21433), (106, 21436), (107, 21439), (120, 21547),

Gene: BaxterFox_24 Start: 21132, Stop: 21506, Start Num: 14

Candidate Starts for BaxterFox_24:

(1, 20949), (2, 20961), (3, 20967), (6, 21048), (Start: 14 @21132 has 55 MA's), (44, 21204), (Start: 45 @21210 has 53 MA's), (51, 21234), (54, 21243), (58, 21255), (62, 21267), (71, 21327), (83, 21369), (99, 21447), (101, 21453), (102, 21456),

Gene: BearBQ_26 Start: 21901, Stop: 22341, Start Num: 7

Candidate Starts for BearBQ_26:

(Start: 7 @21901 has 26 MA's), (Start: 14 @21958 has 55 MA's), (24, 21985), (58, 22075), (66, 22108), (75, 22162), (76, 22165), (77, 22168), (80, 22177), (81, 22180), (86, 22201), (90, 22213), (100, 22270), (102, 22276), (104, 22282), (105, 22285), (106, 22288), (109, 22297), (111, 22303), (112, 22330),

Gene: Birdsong_26 Start: 20794, Stop: 21234, Start Num: 7

Candidate Starts for Birdsong_26:

(Start: 7 @20794 has 26 MA's), (Start: 14 @20851 has 55 MA's), (24, 20878), (58, 20968), (66, 21001), (75, 21055), (76, 21058), (77, 21061), (80, 21070), (81, 21073), (86, 21094), (90, 21106), (100, 21163), (102, 21169), (104, 21175), (105, 21178), (106, 21181), (109, 21190), (111, 21196), (112, 21223),

Gene: BirthdayBoy_41 Start: 33095, Stop: 33490, Start Num: 14

Candidate Starts for BirthdayBoy_41:

(Start: 14 @33095 has 55 MA's), (39, 33161), (53, 33206), (56, 33215), (65, 33245), (72, 33296), (75, 33308), (97, 33407), (104, 33428), (105, 33431), (109, 33443),

Gene: Blino_25 Start: 20905, Stop: 21255, Start Num: 45

Candidate Starts for Blino_25:

(Start: 45 @20905 has 53 MA's), (56, 20938), (75, 21031), (77, 21037), (78, 21040), (84, 21061), (86, 21070), (92, 21103), (106, 21154), (111, 21169), (116, 21220),

Gene: BotCity_27 Start: 21062, Stop: 21502, Start Num: 7

Candidate Starts for BotCity_27:

(Start: 7 @21062 has 26 MA's), (Start: 14 @21119 has 55 MA's), (24, 21146), (58, 21236), (66, 21269), (75, 21323), (76, 21326), (77, 21329), (80, 21338), (81, 21341), (86, 21362), (90, 21374), (100, 21431), (102, 21437), (104, 21443), (105, 21446), (106, 21449), (109, 21458), (111, 21464), (112, 21491),

Gene: Bowser_25 Start: 20957, Stop: 21343, Start Num: 45

Candidate Starts for Bowser_25:

(Start: 45 @20957 has 53 MA's), (Start: 48 @20966 has 1 MA's), (50, 20972), (55, 20993), (77, 21095), (80, 21104), (86, 21128), (100, 21197), (101, 21200), (105, 21212), (106, 21215), (107, 21218), (110, 21227), (120, 21326),

Gene: BoyNamedSue_25 Start: 21811, Stop: 22185, Start Num: 14

Candidate Starts for BoyNamedSue_25:

(6, 21727), (Start: 14 @21811 has 55 MA's), (30, 21859), (44, 21883), (Start: 45 @21889 has 53 MA's), (51, 21913), (54, 21922), (58, 21934), (99, 22126), (101, 22132), (102, 22135),

Gene: Bradissa_26 Start: 21680, Stop: 22060, Start Num: 45

Candidate Starts for Bradissa_26:

(Start: 45 @21680 has 53 MA's), (54, 21707), (55, 21710), (58, 21719), (66, 21752), (68, 21779), (77, 21812), (80, 21821), (86, 21845), (100, 21914), (101, 21917), (106, 21932), (107, 21935), (110, 21944), (117, 22007), (121, 22049),

Gene: BritBrat_26 Start: 21533, Stop: 21913, Start Num: 45

Candidate Starts for BritBrat_26:

(Start: 45 @21533 has 53 MA's), (54, 21560), (55, 21563), (58, 21572), (66, 21605), (68, 21632), (77, 21665), (80, 21674), (86, 21698), (100, 21767), (101, 21770), (106, 21785), (107, 21788), (110, 21797), (117, 21860), (121, 21902),

Gene: Budski_27 Start: 21169, Stop: 21609, Start Num: 7

Candidate Starts for Budski_27:

(Start: 7 @21169 has 26 MA's), (Start: 14 @21226 has 55 MA's), (24, 21253), (58, 21343), (66, 21376), (75, 21430), (76, 21433), (77, 21436), (80, 21445), (81, 21448), (86, 21469), (90, 21481), (100, 21538), (102, 21544), (104, 21550), (105, 21553), (106, 21556), (109, 21565), (111, 21571), (112, 21598),

Gene: Bunker_25 Start: 21159, Stop: 21545, Start Num: 45

Candidate Starts for Bunker_25:

(Start: 45 @21159 has 53 MA's), (Start: 48 @21168 has 1 MA's), (50, 21174), (55, 21195), (80, 21306), (86, 21330), (100, 21399), (101, 21402), (107, 21420), (110, 21429), (114, 21465), (120, 21528),

Gene: CarolAnn_25 Start: 20904, Stop: 21254, Start Num: 45

Candidate Starts for CarolAnn_25:

(Start: 45 @20904 has 53 MA's), (56, 20937), (75, 21030), (77, 21036), (78, 21039), (84, 21060), (86, 21069), (92, 21102), (106, 21153), (111, 21168), (116, 21219),

Gene: Che9d_40 Start: 28798, Stop: 29187, Start Num: 16

Candidate Starts for Che9d_40:

(Start: 11 @28783 has 1 MA's), (Start: 14 @28795 has 55 MA's), (Start: 16 @28798 has 9 MA's), (27, 28831), (29, 28834), (31, 28837), (33, 28840), (49, 28879), (53, 28897), (55, 28903), (63, 28930), (75, 28999), (77, 29005), (79, 29011), (80, 29014), (81, 29017), (85, 29032), (91, 29071), (94, 29083), (98, 29101), (99, 29104), (104, 29119), (108, 29131),

Gene: CheeseTouch_27 Start: 21055, Stop: 21495, Start Num: 7

Candidate Starts for CheeseTouch_27:

(Start: 7 @21055 has 26 MA's), (Start: 14 @21112 has 55 MA's), (24, 21139), (58, 21229), (66, 21262), (75, 21316), (76, 21319), (77, 21322), (80, 21331), (81, 21334), (86, 21355), (90, 21367), (100, 21424), (102, 21430), (104, 21436), (105, 21439), (106, 21442), (109, 21451), (111, 21457), (112, 21484),

Gene: CherryCola_46 Start: 36743, Stop: 37132, Start Num: 45

Candidate Starts for CherryCola_46:

(Start: 45 @36743 has 53 MA's), (54, 36770), (55, 36773), (58, 36782), (66, 36815), (68, 36842), (72, 36857), (77, 36875), (80, 36884), (81, 36887), (86, 36908), (99, 36974), (100, 36977), (101, 36980), (106, 36995), (107, 36998), (110, 37007), (111, 37010), (117, 37070),

Gene: Clown_49 Start: 38210, Stop: 38572, Start Num: 32

Candidate Starts for Clown_49:

(Start: 32 @38210 has 1 MA's), (35, 38216), (38, 38222), (60, 38288), (61, 38291), (64, 38303), (65, 38306), (77, 38375), (78, 38378), (81, 38387), (97, 38468), (98, 38471), (104, 38489), (107, 38498), (108, 38501),

Gene: CoveyB_46 Start: 35788, Stop: 36177, Start Num: 45

Candidate Starts for CoveyB_46:

(Start: 45 @35788 has 53 MA's), (54, 35815), (55, 35818), (58, 35827), (66, 35860), (68, 35887), (72, 35902), (77, 35920), (80, 35929), (81, 35932), (86, 35953), (99, 36019), (100, 36022), (101, 36025), (106, 36040), (107, 36043), (110, 36052), (111, 36055), (117, 36115),

Gene: Crater_25 Start: 20622, Stop: 21062, Start Num: 7

Candidate Starts for Crater_25:

(Start: 7 @20622 has 26 MA's), (Start: 14 @20679 has 55 MA's), (24, 20706), (58, 20796), (66, 20829), (75, 20883), (76, 20886), (77, 20889), (80, 20898), (81, 20901), (86, 20922), (90, 20934), (100, 20991), (102, 20997), (104, 21003), (105, 21006), (106, 21009), (109, 21018), (111, 21024), (112, 21051),

Gene: Danyall_45 Start: 35790, Stop: 36179, Start Num: 45

Candidate Starts for Danyall_45:

(Start: 45 @35790 has 53 MA's), (54, 35817), (55, 35820), (58, 35829), (66, 35862), (68, 35889), (72, 35904), (77, 35922), (80, 35931), (86, 35955), (99, 36021), (100, 36024), (101, 36027), (106, 36042), (107, 36045), (110, 36054), (117, 36117),

Gene: DaviePasture_40 Start: 32896, Stop: 33291, Start Num: 14

Candidate Starts for DaviePasture_40:

(Start: 14 @32896 has 55 MA's), (39, 32962), (56, 33016), (72, 33097), (75, 33109), (84, 33139), (97, 33208), (104, 33229), (105, 33232), (109, 33244),

Gene: Demsculpinboyz_41 Start: 28731, Stop: 29120, Start Num: 16

Candidate Starts for Demsculpinboyz_41:

(Start: 11 @28716 has 1 MA's), (Start: 14 @28728 has 55 MA's), (Start: 16 @28731 has 9 MA's), (20, 28746), (Start: 25 @28758 has 1 MA's), (29, 28767), (33, 28773), (40, 28788), (49, 28812), (55, 28836), (56, 28839), (58, 28845), (59, 28848), (60, 28851), (62, 28857), (64, 28866), (65, 28869), (70, 28914), (75, 28932), (79, 28944), (80, 28947), (81, 28950), (85, 28965), (94, 29016), (98, 29034), (99, 29037), (104, 29052), (108, 29064),

Gene: DoobyDoo_39 Start: 32046, Stop: 32441, Start Num: 14

Candidate Starts for DoobyDoo_39:

(Start: 14 @32046 has 55 MA's), (39, 32112), (56, 32166), (72, 32247), (75, 32259), (84, 32289), (97, 32358), (104, 32379), (105, 32382), (109, 32394),

Gene: EMSquaredA_26 Start: 21533, Stop: 21913, Start Num: 45

Candidate Starts for EMSquaredA_26:

(Start: 45 @21533 has 53 MA's), (54, 21560), (55, 21563), (58, 21572), (66, 21605), (68, 21632), (77, 21665), (80, 21674), (86, 21698), (100, 21767), (101, 21770), (106, 21785), (107, 21788), (110, 21797), (117, 21860), (121, 21902),

Gene: EdnaMode_22 Start: 18339, Stop: 18710, Start Num: 45

Candidate Starts for EdnaMode_22:

(Start: 45 @18339 has 53 MA's), (54, 18366), (55, 18369), (58, 18378), (68, 18438), (77, 18471), (80, 18480), (86, 18504), (100, 18573), (101, 18576), (107, 18594), (108, 18597), (110, 18603), (111, 18606), (117, 18666),

Gene: EnalisNailo_26 Start: 21682, Stop: 22062, Start Num: 45

Candidate Starts for EnalisNailo_26:

(Start: 45 @21682 has 53 MA's), (54, 21709), (55, 21712), (58, 21721), (66, 21754), (68, 21781), (77, 21814), (80, 21823), (86, 21847), (100, 21916), (101, 21919), (106, 21934), (107, 21937), (110, 21946), (117, 22009), (121, 22051),

Gene: Erutan_40 Start: 32554, Stop: 32949, Start Num: 14

Candidate Starts for Erutan_40:

(Start: 14 @32554 has 55 MA's), (39, 32620), (56, 32674), (65, 32704), (72, 32755), (75, 32767), (97, 32866), (104, 32887), (105, 32890), (109, 32902),

Gene: Eudoria_26 Start: 21932, Stop: 22306, Start Num: 14

Candidate Starts for Eudoria_26:

(6, 21848), (Start: 14 @21932 has 55 MA's), (30, 21980), (44, 22004), (Start: 45 @22010 has 53 MA's), (51, 22034), (54, 22043), (58, 22055), (99, 22247), (101, 22253), (102, 22256),

Gene: Evamon_42 Start: 35809, Stop: 36198, Start Num: 45

Candidate Starts for Evamon_42:

(Start: 45 @35809 has 53 MA's), (54, 35836), (55, 35839), (58, 35848), (66, 35881), (68, 35908), (72, 35923), (77, 35941), (80, 35950), (86, 35974), (99, 36040), (100, 36043), (101, 36046), (106, 36061), (107, 36064), (110, 36073), (117, 36136),

Gene: Eyes_25 Start: 21050, Stop: 21436, Start Num: 45

Candidate Starts for Eyes_25:

(Start: 45 @21050 has 53 MA's), (Start: 48 @21059 has 1 MA's), (50, 21065), (54, 21083), (55, 21086), (77, 21188), (80, 21197), (86, 21221), (100, 21290), (101, 21293), (105, 21305), (106, 21308), (107, 21311), (110, 21320), (120, 21419),

Gene: Eyre_22 Start: 19166, Stop: 19540, Start Num: 14

Candidate Starts for Eyre_22:

(6, 19082), (Start: 14 @19166 has 55 MA's), (44, 19238), (51, 19268), (54, 19277), (58, 19289), (62, 19301), (65, 19313), (72, 19364), (79, 19388), (83, 19403), (94, 19460),

Gene: FF47_31 Start: 24709, Stop: 25119, Start Num: 17

Candidate Starts for FF47_31:

(8, 24658), (Start: 17 @24709 has 1 MA's), (22, 24727), (43, 24772), (59, 24829), (92, 24988), (98, 25015), (99, 25018), (101, 25024), (104, 25033), (117, 25114),

Gene: Fairfaxidum_24 Start: 21186, Stop: 21560, Start Num: 45

Candidate Starts for Fairfaxidum_24:

(Start: 45 @21186 has 53 MA's), (55, 21222), (75, 21318), (76, 21321), (86, 21357), (102, 21432), (103, 21435), (107, 21447),

Gene: Faith5x5_22 Start: 18281, Stop: 18646, Start Num: 45

Candidate Starts for Faith5x5_22:

(Start: 45 @18281 has 53 MA's), (Start: 48 @18290 has 1 MA's), (55, 18317), (56, 18320), (59, 18329), (68, 18386), (69, 18392), (86, 18452), (100, 18521), (101, 18524), (106, 18539), (108, 18545), (110, 18551), (111, 18554),

Gene: Floral_26 Start: 21533, Stop: 21913, Start Num: 45

Candidate Starts for Floral_26:

(Start: 45 @21533 has 53 MA's), (54, 21560), (55, 21563), (58, 21572), (66, 21605), (68, 21632), (77, 21665), (80, 21674), (86, 21698), (100, 21767), (101, 21770), (106, 21785), (107, 21788), (110, 21797), (117, 21860), (121, 21902),

Gene: Frickyeah_26 Start: 20827, Stop: 21267, Start Num: 7

Candidate Starts for Frickyeah_26:

(Start: 7 @20827 has 26 MA's), (Start: 14 @20884 has 55 MA's), (24, 20911), (58, 21001), (66, 21034), (75, 21088), (76, 21091), (77, 21094), (80, 21103), (81, 21106), (86, 21127), (90, 21139), (100, 21196), (102, 21202), (104, 21208), (105, 21211), (106, 21214), (109, 21223), (111, 21229), (112, 21256),

Gene: Fulcrum_41 Start: 33075, Stop: 33470, Start Num: 14

Candidate Starts for Fulcrum_41:

(Start: 14 @33075 has 55 MA's), (39, 33141), (56, 33195), (72, 33276), (75, 33288), (84, 33318), (97, 33387), (104, 33408), (105, 33411), (109, 33423),

Gene: GEazy_25 Start: 21065, Stop: 21451, Start Num: 45

Candidate Starts for GEazy_25:

(Start: 45 @21065 has 53 MA's), (Start: 48 @21074 has 1 MA's), (50, 21080), (54, 21098), (55, 21101), (77, 21203), (80, 21212), (86, 21236), (100, 21305), (101, 21308), (106, 21323), (107, 21326), (110, 21335), (120, 21434),

Gene: GOATification_41 Start: 33075, Stop: 33470, Start Num: 14

Candidate Starts for GOATification_41:

(Start: 14 @33075 has 55 MA's), (39, 33141), (56, 33195), (72, 33276), (75, 33288), (84, 33318), (97, 33387), (104, 33408), (105, 33411), (109, 33423),

Gene: Genamy16_41 Start: 31366, Stop: 31752, Start Num: 14

Candidate Starts for Genamy16_41:

(Start: 14 @31366 has 55 MA's), (56, 31486), (65, 31516), (67, 31543), (72, 31567), (75, 31579), (84, 31609), (85, 31612), (97, 31678), (104, 31699), (105, 31702), (109, 31714),

Gene: Getalong_28 Start: 21864, Stop: 22304, Start Num: 7

Candidate Starts for Getalong_28:

(Start: 7 @21864 has 26 MA's), (Start: 14 @21921 has 55 MA's), (24, 21948), (58, 22038), (66, 22071), (75, 22125), (76, 22128), (77, 22131), (80, 22140), (81, 22143), (86, 22164), (90, 22176), (100, 22233), (102, 22239), (104, 22245), (105, 22248), (106, 22251), (109, 22260), (111, 22266), (112, 22293),

Gene: Gezellig_42 Start: 35941, Stop: 36330, Start Num: 45

Candidate Starts for Gezellig_42:

(Start: 45 @35941 has 53 MA's), (54, 35968), (55, 35971), (58, 35980), (66, 36013), (68, 36040), (72, 36055), (77, 36073), (80, 36082), (81, 36085), (86, 36106), (99, 36172), (100, 36175), (101, 36178), (106, 36193), (107, 36196), (110, 36205), (111, 36208), (117, 36268),

Gene: Gibbin_41 Start: 33173, Stop: 33559, Start Num: 14

Candidate Starts for Gibbin_41:

(Start: 14 @33173 has 55 MA's), (39, 33239), (56, 33293), (72, 33374), (75, 33386), (84, 33416), (97, 33485), (104, 33506), (105, 33509), (109, 33521),

Gene: Gretellyn_40 Start: 33439, Stop: 33834, Start Num: 14

Candidate Starts for Gretellyn_40:

(Start: 14 @33439 has 55 MA's), (39, 33505), (56, 33559), (65, 33589), (72, 33640), (75, 33652), (84, 33682), (97, 33751), (104, 33772), (105, 33775), (109, 33787),

Gene: Gudmit_23 Start: 19228, Stop: 19611, Start Num: 14

Candidate Starts for Gudmit_23:

(Start: 14 @19228 has 55 MA's), (35, 19285), (50, 19324), (52, 19336), (58, 19354), (60, 19360), (63, 19372), (81, 19459), (83, 19468), (86, 19480), (92, 19516), (96, 19537), (101, 19552), (105, 19564),

Gene: Halo3_43 Start: 36234, Stop: 36623, Start Num: 45

Candidate Starts for Halo3_43:

(Start: 45 @36234 has 53 MA's), (54, 36261), (55, 36264), (58, 36273), (66, 36306), (68, 36333), (72, 36348), (77, 36366), (80, 36375), (86, 36399), (99, 36465), (100, 36468), (101, 36471), (106, 36486), (107, 36489), (110, 36498), (117, 36561),

Gene: HannahD_25 Start: 21065, Stop: 21451, Start Num: 45

Candidate Starts for HannahD_25:

(Start: 45 @21065 has 53 MA's), (Start: 48 @21074 has 1 MA's), (50, 21080), (54, 21098), (55, 21101), (77, 21203), (80, 21212), (86, 21236), (100, 21305), (101, 21308), (106, 21323), (107, 21326), (110, 21335), (120, 21434),

Gene: Holliday_27 Start: 21169, Stop: 21609, Start Num: 7

Candidate Starts for Holliday_27:

(Start: 7 @21169 has 26 MA's), (Start: 14 @21226 has 55 MA's), (24, 21253), (58, 21343), (66, 21376), (75, 21430), (76, 21433), (77, 21436), (80, 21445), (81, 21448), (86, 21469), (90, 21481), (100, 21538), (102, 21544), (104, 21550), (105, 21553), (106, 21556), (109, 21565), (111, 21571), (112, 21598),

Gene: Horus_27 Start: 21086, Stop: 21526, Start Num: 7

Candidate Starts for Horus_27:

(Start: 7 @21086 has 26 MA's), (Start: 14 @21143 has 55 MA's), (24, 21170), (58, 21260), (66, 21293), (75, 21347), (76, 21350), (77, 21353), (80, 21362), (81, 21365), (86, 21386), (90, 21398), (100, 21455), (102, 21461), (104, 21467), (105, 21470), (106, 21473), (109, 21482), (111, 21488), (112, 21515),

Gene: Hyzer_26 Start: 22472, Stop: 22846, Start Num: 14

Candidate Starts for Hyzer_26:

(Start: 14 @22472 has 55 MA's), (30, 22520), (44, 22544), (51, 22574), (54, 22583), (58, 22595), (62, 22607), (71, 22667), (99, 22787), (101, 22793),

Gene: Jabbawokkie_43 Start: 30179, Stop: 30568, Start Num: 16

Candidate Starts for Jabbawokkie_43:

(Start: 11 @30164 has 1 MA's), (Start: 14 @30176 has 55 MA's), (Start: 16 @30179 has 9 MA's), (20, 30194), (Start: 25 @30206 has 1 MA's), (29, 30215), (33, 30221), (40, 30236), (49, 30260), (55, 30284), (56, 30287), (58, 30293), (60, 30299), (62, 30305), (64, 30314), (65, 30317), (70, 30362), (75, 30380), (79, 30392), (80, 30395), (81, 30398), (85, 30413), (94, 30464), (98, 30482), (99, 30485), (104, 30500), (108, 30512),

Gene: Jalebi_39 Start: 33608, Stop: 34003, Start Num: 14

Candidate Starts for Jalebi_39:

(Start: 14 @33608 has 55 MA's), (39, 33674), (56, 33728), (65, 33758), (72, 33809), (75, 33821), (84, 33851), (97, 33920), (104, 33941), (105, 33944), (109, 33956),

Gene: Jambalaya_43 Start: 35588, Stop: 35977, Start Num: 45

Candidate Starts for Jambalaya_43:

(Start: 45 @35588 has 53 MA's), (54, 35615), (55, 35618), (58, 35627), (66, 35660), (68, 35687), (72, 35702), (77, 35720), (80, 35729), (86, 35753), (99, 35819), (100, 35822), (101, 35825), (106, 35840), (107, 35843), (110, 35852), (117, 35915),

Gene: Jamemuya19_38 Start: 30956, Stop: 31342, Start Num: 14

Candidate Starts for Jamemuya19_38:

(Start: 14 @30956 has 55 MA's), (56, 31076), (65, 31106), (67, 31133), (72, 31157), (75, 31169), (84, 31199), (85, 31202), (97, 31268), (104, 31289), (105, 31292), (109, 31304),

Gene: JuJu_25 Start: 20877, Stop: 21227, Start Num: 45

Candidate Starts for JuJu_25:

(Start: 45 @20877 has 53 MA's), (56, 20910), (60, 20922), (61, 20925), (70, 20985), (75, 21003), (79, 21015), (103, 21117), (104, 21120), (111, 21141),

Gene: Kamaru_27 Start: 21169, Stop: 21609, Start Num: 7

Candidate Starts for Kamaru_27:

(Start: 7 @21169 has 26 MA's), (Start: 14 @21226 has 55 MA's), (24, 21253), (58, 21343), (66, 21376), (75, 21430), (76, 21433), (77, 21436), (80, 21445), (81, 21448), (86, 21469), (90, 21481), (100, 21538), (102, 21544), (104, 21550), (105, 21553), (106, 21556), (109, 21565), (111, 21571), (112, 21598),

Gene: KappaFarmDelta_26 Start: 21305, Stop: 21655, Start Num: 45

Candidate Starts for KappaFarmDelta_26:

(Start: 45 @21305 has 53 MA's), (56, 21338), (75, 21431), (77, 21437), (78, 21440), (84, 21461), (86, 21470), (92, 21503), (106, 21554), (111, 21569),

Gene: Kenna_26 Start: 21062, Stop: 21502, Start Num: 7

Candidate Starts for Kenna_26:

(Start: 7 @21062 has 26 MA's), (Start: 14 @21119 has 55 MA's), (24, 21146), (58, 21236), (66, 21269), (75, 21323), (76, 21326), (77, 21329), (80, 21338), (81, 21341), (86, 21362), (90, 21374), (100, 21431), (102, 21437), (104, 21443), (105, 21446), (106, 21449), (109, 21458), (111, 21464), (112, 21491),

Gene: KimmyK_44 Start: 36523, Stop: 36912, Start Num: 45

Candidate Starts for KimmyK_44:

(Start: 45 @36523 has 53 MA's), (54, 36550), (55, 36553), (58, 36562), (66, 36595), (68, 36622), (72, 36637), (77, 36655), (80, 36664), (81, 36667), (86, 36688), (99, 36754), (100, 36757), (101, 36760), (106, 36775), (107, 36778), (110, 36787), (111, 36790), (117, 36850),

Gene: Kita_26 Start: 21932, Stop: 22306, Start Num: 14

Candidate Starts for Kita_26:

(6, 21848), (Start: 14 @21932 has 55 MA's), (30, 21980), (44, 22004), (Start: 45 @22010 has 53 MA's), (51, 22034), (54, 22043), (58, 22055), (99, 22247), (101, 22253), (102, 22256),

Gene: Kuwabara_26 Start: 20488, Stop: 20928, Start Num: 7

Candidate Starts for Kuwabara_26:

(Start: 7 @20488 has 26 MA's), (Start: 14 @20545 has 55 MA's), (24, 20572), (58, 20662), (66, 20695), (75, 20749), (76, 20752), (77, 20755), (80, 20764), (81, 20767), (86, 20788), (90, 20800), (100, 20857), (102, 20863), (104, 20869), (105, 20872), (106, 20875), (109, 20884), (111, 20890), (112, 20917),

Gene: Lamberg_22 Start: 18339, Stop: 18710, Start Num: 45

Candidate Starts for Lamberg_22:

(Start: 45 @18339 has 53 MA's), (54, 18366), (55, 18369), (58, 18378), (68, 18438), (77, 18471), (80, 18480), (86, 18504), (100, 18573), (101, 18576), (107, 18594), (108, 18597), (110, 18603), (111, 18606), (117, 18666),

Gene: Lambo_40 Start: 33093, Stop: 33488, Start Num: 14

Candidate Starts for Lambo_40:

(Start: 14 @33093 has 55 MA's), (39, 33159), (56, 33213), (65, 33243), (72, 33294), (75, 33306), (84, 33336), (97, 33405), (104, 33426), (105, 33429), (109, 33441),

Gene: Leroy_27 Start: 21087, Stop: 21527, Start Num: 7

Candidate Starts for Leroy_27:

(Start: 7 @21087 has 26 MA's), (Start: 14 @21144 has 55 MA's), (24, 21171), (58, 21261), (66, 21294), (75, 21348), (76, 21351), (77, 21354), (80, 21363), (81, 21366), (86, 21387), (90, 21399), (100, 21456), (102, 21462), (104, 21468), (105, 21471), (106, 21474), (109, 21483), (111, 21489), (112, 21516),

Gene: LilSpotty_36 Start: 26778, Stop: 27152, Start Num: 16

Candidate Starts for LilSpotty_36:

(9, 26739), (Start: 14 @26775 has 55 MA's), (Start: 16 @26778 has 9 MA's), (56, 26886), (59, 26895), (61, 26901), (66, 26925), (70, 26961), (75, 26979), (80, 26994), (85, 27012), (91, 27051), (104, 27099),

Gene: Lila22_39 Start: 33048, Stop: 33443, Start Num: 14

Candidate Starts for Lila22_39:

(Start: 14 @33048 has 55 MA's), (39, 33114), (56, 33168), (65, 33198), (72, 33249), (75, 33261), (97, 33360), (104, 33381), (105, 33384), (109, 33396),

Gene: Lilas_26 Start: 21682, Stop: 22062, Start Num: 45

Candidate Starts for Lilas_26:

(Start: 45 @21682 has 53 MA's), (54, 21709), (55, 21712), (58, 21721), (66, 21754), (68, 21781), (77, 21814), (80, 21823), (86, 21847), (100, 21916), (101, 21919), (106, 21934), (107, 21937), (110, 21946), (117, 22009), (121, 22051),

Gene: LitninMcQueen_26 Start: 20818, Stop: 21258, Start Num: 7

Candidate Starts for LitninMcQueen_26:

(Start: 7 @20818 has 26 MA's), (Start: 14 @20875 has 55 MA's), (24, 20902), (58, 20992), (66, 21025), (75, 21079), (76, 21082), (77, 21085), (80, 21094), (81, 21097), (86, 21118), (90, 21130), (100, 21187), (102, 21193), (104, 21199), (105, 21202), (109, 21214), (111, 21220), (112, 21247),

Gene: Lton_22 Start: 18368, Stop: 18739, Start Num: 45

Candidate Starts for Lton_22:

(Start: 45 @18368 has 53 MA's), (54, 18395), (55, 18398), (58, 18407), (68, 18467), (77, 18500), (80, 18509), (86, 18533), (100, 18602), (101, 18605), (107, 18623), (108, 18626), (110, 18632), (111, 18635), (117, 18695),

Gene: LuckyLeo_39 Start: 32448, Stop: 32855, Start Num: 14

Candidate Starts for LuckyLeo_39:

(Start: 14 @32448 has 55 MA's), (23, 32481), (51, 32553), (55, 32565), (56, 32568), (62, 32586), (67, 32625), (71, 32646), (81, 32679), (84, 32691), (96, 32757), (99, 32766), (101, 32772), (104, 32781), (109, 32796),

Gene: LunaStella_37 Start: 30071, Stop: 30460, Start Num: 16

Candidate Starts for LunaStella_37:

(Start: 11 @30056 has 1 MA's), (Start: 16 @30071 has 9 MA's), (Start: 21 @30089 has 1 MA's), (26, 30101), (27, 30104), (29, 30107), (33, 30113), (34, 30116), (36, 30119), (40, 30128), (Start: 45 @30140 has 53 MA's), (55, 30176), (56, 30179), (59, 30188), (60, 30191), (62, 30197), (66, 30218), (70, 30254), (75, 30272), (77, 30278), (79, 30284), (80, 30287), (81, 30290), (84, 30302), (86, 30311), (91, 30344), (92, 30347), (99, 30377), (104, 30392), (108, 30404),

Gene: Lutum_27 Start: 21062, Stop: 21502, Start Num: 7

Candidate Starts for Lutum_27:

(Start: 7 @21062 has 26 MA's), (Start: 14 @21119 has 55 MA's), (24, 21146), (58, 21236), (66, 21269), (75, 21323), (76, 21326), (77, 21329), (80, 21338), (81, 21341), (86, 21362), (90, 21374), (100, 21431), (102, 21437), (104, 21443), (105, 21446), (106, 21449), (109, 21458), (111, 21464), (112, 21491),

Gene: Maco6_29 Start: 24049, Stop: 24459, Start Num: 18

Candidate Starts for Maco6_29:

(15, 24040), (Start: 18 @24049 has 1 MA's), (43, 24112), (59, 24169), (92, 24328), (101, 24364), (104, 24373), (117, 24454),

Gene: MagicMan_25 Start: 21371, Stop: 21757, Start Num: 45

Candidate Starts for MagicMan_25:

(Start: 45 @21371 has 53 MA's), (Start: 48 @21380 has 1 MA's), (50, 21386), (55, 21407), (77, 21509), (80, 21518), (86, 21542), (100, 21611), (101, 21614), (105, 21626), (106, 21629), (107, 21632), (110, 21641), (120, 21740),

Gene: Malisha_28 Start: 22947, Stop: 23384, Start Num: 7

Candidate Starts for Malisha_28:

(Start: 7 @22947 has 26 MA's), (Start: 14 @23004 has 55 MA's), (24, 23031), (Start: 25 @23034 has 1 MA's), (26, 23037), (34, 23052), (40, 23064), (59, 23124), (66, 23154), (76, 23211), (77, 23214), (81,

23226), (84, 23238), (85, 23241), (86, 23247), (90, 23259), (95, 23295), (96, 23304), (100, 23316), (102, 23322), (104, 23328), (105, 23331), (106, 23334), (109, 23343), (111, 23349),

Gene: Manasvini_26 Start: 21932, Stop: 22306, Start Num: 14

Candidate Starts for Manasvini_26:

(6, 21848), (Start: 14 @21932 has 55 MA's), (30, 21980), (44, 22004), (Start: 45 @22010 has 53 MA's), (51, 22034), (54, 22043), (58, 22055), (99, 22247), (101, 22253), (102, 22256),

Gene: Maridalia_25 Start: 21932, Stop: 22306, Start Num: 14

Candidate Starts for Maridalia_25:

(6, 21848), (Start: 14 @21932 has 55 MA's), (30, 21980), (44, 22004), (Start: 45 @22010 has 53 MA's), (51, 22034), (54, 22043), (58, 22055), (99, 22247), (101, 22253), (102, 22256),

Gene: Marteena_26 Start: 21533, Stop: 21913, Start Num: 45

Candidate Starts for Marteena_26:

(Start: 45 @21533 has 53 MA's), (54, 21560), (55, 21563), (58, 21572), (66, 21605), (68, 21632), (77, 21665), (80, 21674), (86, 21698), (100, 21767), (101, 21770), (106, 21785), (107, 21788), (110, 21797), (117, 21860), (121, 21902),

Gene: Matteo_22 Start: 18276, Stop: 18656, Start Num: 45

Candidate Starts for Matteo_22:

(Start: 45 @18276 has 53 MA's), (54, 18303), (55, 18306), (58, 18315), (66, 18348), (68, 18375), (77, 18408), (80, 18417), (86, 18441), (100, 18510), (101, 18513), (106, 18528), (107, 18531), (110, 18540), (117, 18603),

Gene: Mima20_38 Start: 32797, Stop: 33192, Start Num: 14

Candidate Starts for Mima20_38:

(Start: 14 @32797 has 55 MA's), (39, 32863), (56, 32917), (65, 32947), (72, 32998), (75, 33010), (84, 33040), (86, 33049), (97, 33109), (104, 33130), (105, 33133), (109, 33145),

Gene: MoiGyank_42 Start: 33478, Stop: 33873, Start Num: 14

Candidate Starts for MoiGyank_42:

(Start: 14 @33478 has 55 MA's), (39, 33544), (56, 33598), (65, 33628), (72, 33679), (75, 33691), (84, 33721), (97, 33790), (104, 33811), (105, 33814), (109, 33826),

Gene: MooMoo_33 Start: 28618, Stop: 29007, Start Num: 16

Candidate Starts for MooMoo_33:

(Start: 11 @28603 has 1 MA's), (Start: 16 @28618 has 9 MA's), (Start: 21 @28636 has 1 MA's), (26, 28648), (27, 28651), (29, 28654), (33, 28660), (34, 28663), (36, 28666), (40, 28675), (Start: 45 @28687 has 53 MA's), (55, 28723), (56, 28726), (59, 28735), (60, 28738), (62, 28744), (66, 28765), (70, 28801), (75, 28819), (77, 28825), (79, 28831), (80, 28834), (81, 28837), (84, 28849), (86, 28858), (91, 28891), (92, 28894), (99, 28924), (104, 28939),

Gene: Moosehead_22 Start: 18289, Stop: 18654, Start Num: 45

Candidate Starts for Moosehead_22:

(Start: 45 @18289 has 53 MA's), (Start: 48 @18298 has 1 MA's), (59, 18337), (68, 18394), (69, 18400), (93, 18502), (99, 18526), (100, 18529), (101, 18532), (106, 18547), (108, 18553), (110, 18559), (111, 18562),

Gene: MortyNRick_26 Start: 20794, Stop: 21234, Start Num: 7

Candidate Starts for MortyNRick_26:

(Start: 7 @20794 has 26 MA's), (Start: 14 @20851 has 55 MA's), (24, 20878), (58, 20968), (66, 21001), (75, 21055), (76, 21058), (77, 21061), (80, 21070), (81, 21073), (86, 21094), (90, 21106), (100, 21163),

(102, 21169), (104, 21175), (105, 21178), (106, 21181), (109, 21190), (111, 21196), (112, 21223),

Gene: Muddy_31 Start: 24990, Stop: 25400, Start Num: 17

Candidate Starts for Muddy_31:

(Start: 17 @24990 has 1 MA's), (43, 25053), (85, 25227), (86, 25233), (88, 25236), (92, 25269), (98, 25296), (101, 25305), (104, 25314), (115, 25377), (117, 25395),

Gene: Neobush_26 Start: 21932, Stop: 22306, Start Num: 14

Candidate Starts for Neobush_26:

(6, 21848), (Start: 14 @21932 has 55 MA's), (30, 21980), (44, 22004), (Start: 45 @22010 has 53 MA's), (51, 22034), (54, 22043), (58, 22055), (99, 22247), (101, 22253), (102, 22256),

Gene: Nettuno_22 Start: 18342, Stop: 18710, Start Num: 45

Candidate Starts for Nettuno_22:

(Start: 45 @18342 has 53 MA's), (54, 18369), (55, 18372), (58, 18381), (66, 18414), (68, 18441), (77, 18474), (80, 18483), (86, 18507), (100, 18576), (101, 18579), (106, 18594), (107, 18597), (110, 18606), (117, 18669),

Gene: NorManre_41 Start: 32684, Stop: 33079, Start Num: 14

Candidate Starts for NorManre_41:

(Start: 14 @32684 has 55 MA's), (39, 32750), (56, 32804), (72, 32885), (75, 32897), (84, 32927), (97, 32996), (104, 33017), (105, 33020), (109, 33032),

Gene: NovaSharks_40 Start: 30956, Stop: 31342, Start Num: 14

Candidate Starts for NovaSharks_40:

(Start: 14 @30956 has 55 MA's), (56, 31076), (65, 31106), (67, 31133), (72, 31157), (75, 31169), (84, 31199), (85, 31202), (97, 31268), (104, 31289), (105, 31292), (109, 31304),

Gene: Obliviate_24 Start: 20727, Stop: 21077, Start Num: 45

Candidate Starts for Obliviate_24:

(Start: 45 @20727 has 53 MA's), (56, 20760), (75, 20853), (77, 20859), (78, 20862), (84, 20883), (86, 20892), (92, 20925), (106, 20976), (111, 20991), (116, 21042),

Gene: OneDirection_21 Start: 18308, Stop: 18682, Start Num: 45

Candidate Starts for OneDirection_21:

(4, 18086), (5, 18116), (Start: 45 @18308 has 53 MA's), (49, 18320), (50, 18323), (55, 18344), (56, 18347), (59, 18356), (66, 18386), (75, 18440), (83, 18467), (86, 18479), (101, 18551), (103, 18557),

Gene: OneUp_48 Start: 31264, Stop: 31683, Start Num: 12

Candidate Starts for OneUp_48:

(Start: 11 @31252 has 1 MA's), (Start: 12 @31264 has 1 MA's), (20, 31288), (41, 31339), (46, 31354), (54, 31381), (55, 31384), (56, 31387), (58, 31393), (59, 31396), (64, 31414), (72, 31468), (86, 31519), (87, 31522), (90, 31543), (103, 31612), (104, 31615), (111, 31636),

Gene: Opie_25 Start: 21395, Stop: 21781, Start Num: 45

Candidate Starts for Opie_25:

(Start: 45 @21395 has 53 MA's), (Start: 48 @21404 has 1 MA's), (50, 21410), (54, 21428), (55, 21431), (77, 21533), (79, 21539), (80, 21542), (86, 21566), (99, 21632), (100, 21635), (101, 21638), (105, 21650), (106, 21653), (107, 21656), (110, 21665), (120, 21764),

Gene: OtterstedtS21_40 Start: 32755, Stop: 33150, Start Num: 14

Candidate Starts for OtterstedtS21_40:

(Start: 14 @32755 has 55 MA's), (39, 32821), (56, 32875), (65, 32905), (72, 32956), (75, 32968), (84, 32998), (97, 33067), (104, 33088), (105, 33091), (109, 33103),

Gene: PantheRoc_25 Start: 21130, Stop: 21504, Start Num: 14

Candidate Starts for PantheRoc_25:

(6, 21046), (Start: 14 @21130 has 55 MA's), (30, 21178), (44, 21202), (Start: 45 @21208 has 53 MA's), (51, 21232), (54, 21241), (58, 21253), (99, 21445), (101, 21451), (102, 21454),

Gene: ParvusTarda_40 Start: 32223, Stop: 32618, Start Num: 14

Candidate Starts for ParvusTarda_40:

(Start: 14 @32223 has 55 MA's), (39, 32289), (53, 32334), (56, 32343), (65, 32373), (72, 32424), (75, 32436), (97, 32535), (104, 32556), (105, 32559), (109, 32571),

Gene: Patos_41 Start: 32684, Stop: 33079, Start Num: 14

Candidate Starts for Patos_41:

(Start: 14 @32684 has 55 MA's), (39, 32750), (56, 32804), (72, 32885), (75, 32897), (84, 32927), (97, 32996), (104, 33017), (105, 33020), (109, 33032),

Gene: Pepperoni_23 Start: 19151, Stop: 19531, Start Num: 45

Candidate Starts for Pepperoni_23:

(Start: 45 @19151 has 53 MA's), (54, 19178), (55, 19181), (58, 19190), (66, 19223), (68, 19250), (77, 19283), (80, 19292), (86, 19316), (100, 19385), (101, 19388), (107, 19406), (108, 19409), (110, 19415), (111, 19418), (117, 19478),

Gene: Periwinkle_29 Start: 21531, Stop: 21971, Start Num: 7

Candidate Starts for Periwinkle_29:

(Start: 7 @21531 has 26 MA's), (Start: 14 @21588 has 55 MA's), (24, 21615), (58, 21705), (66, 21738), (75, 21792), (76, 21795), (77, 21798), (80, 21807), (81, 21810), (86, 21831), (90, 21843), (96, 21888), (100, 21900), (102, 21906), (104, 21912), (105, 21915), (106, 21918), (109, 21927), (111, 21933), (112, 21960),

Gene: Petra_26 Start: 20781, Stop: 21155, Start Num: 14

Candidate Starts for Petra_26:

(Start: 14 @20781 has 55 MA's), (23, 20814), (30, 20829), (51, 20883), (54, 20892), (58, 20904), (71, 20976), (99, 21096), (101, 21102), (104, 21111),

Gene: Phabuloso_26 Start: 20818, Stop: 21258, Start Num: 7

Candidate Starts for Phabuloso_26:

(Start: 7 @20818 has 26 MA's), (Start: 14 @20875 has 55 MA's), (24, 20902), (58, 20992), (66, 21025), (75, 21079), (76, 21082), (77, 21085), (80, 21094), (81, 21097), (86, 21118), (90, 21130), (100, 21187), (102, 21193), (104, 21199), (105, 21202), (106, 21205), (109, 21214), (111, 21220), (112, 21247),

Gene: Phistory_28 Start: 21852, Stop: 22292, Start Num: 7

Candidate Starts for Phistory_28:

(Start: 7 @21852 has 26 MA's), (Start: 14 @21909 has 55 MA's), (24, 21936), (58, 22026), (66, 22059), (75, 22113), (76, 22116), (77, 22119), (80, 22128), (81, 22131), (86, 22152), (90, 22164), (100, 22221), (102, 22227), (104, 22233), (105, 22236), (106, 22239), (109, 22248), (111, 22254), (112, 22281),

Gene: Pickett_22 Start: 18266, Stop: 18634, Start Num: 45

Candidate Starts for Pickett_22:

(Start: 45 @18266 has 53 MA's), (54, 18293), (55, 18296), (58, 18305), (66, 18338), (68, 18365), (77, 18398), (80, 18407), (86, 18431), (100, 18500), (101, 18503), (106, 18518), (107, 18521), (110, 18530), (117, 18593),

Gene: Pollux_26 Start: 21533, Stop: 21913, Start Num: 45

Candidate Starts for Pollux_26:

(Start: 45 @21533 has 53 MA's), (54, 21560), (55, 21563), (58, 21572), (66, 21605), (68, 21632), (77, 21665), (80, 21674), (86, 21698), (100, 21767), (101, 21770), (106, 21785), (107, 21788), (110, 21797), (117, 21860), (121, 21902),

Gene: Portcullis_44 Start: 35309, Stop: 35698, Start Num: 45

Candidate Starts for Portcullis_44:

(Start: 45 @35309 has 53 MA's), (54, 35336), (55, 35339), (58, 35348), (66, 35381), (68, 35408), (72, 35423), (77, 35441), (80, 35450), (86, 35474), (99, 35540), (100, 35543), (101, 35546), (106, 35561), (107, 35564), (110, 35573), (117, 35636),

Gene: PrincePatrick_24 Start: 21182, Stop: 21556, Start Num: 45

Candidate Starts for PrincePatrick_24:

(Start: 45 @21182 has 53 MA's), (55, 21218), (75, 21314), (76, 21317), (86, 21353), (102, 21428), (103, 21431), (107, 21443),

Gene: REQ2_26 Start: 22510, Stop: 22854, Start Num: 41

Candidate Starts for REQ2_26:

(41, 22510), (Start: 47 @22528 has 1 MA's), (55, 22558), (59, 22570), (60, 22573), (64, 22588), (76, 22657), (99, 22759), (100, 22762), (104, 22774),

Gene: Ranch_40 Start: 31581, Stop: 31976, Start Num: 14

Candidate Starts for Ranch_40:

(Start: 14 @31581 has 55 MA's), (39, 31647), (56, 31701), (65, 31731), (72, 31782), (75, 31794), (84, 31824), (97, 31893), (104, 31914), (105, 31917), (109, 31929),

Gene: RazorC_39 Start: 31348, Stop: 31734, Start Num: 14

Candidate Starts for RazorC_39:

(Start: 14 @31348 has 55 MA's), (56, 31468), (65, 31498), (67, 31525), (72, 31549), (75, 31561), (84, 31591), (85, 31594), (97, 31660), (104, 31681), (105, 31684), (109, 31696),

Gene: Rem711_40 Start: 30711, Stop: 31142, Start Num: 25

Candidate Starts for Rem711_40:

(10, 30645), (13, 30669), (19, 30687), (Start: 25 @30711 has 1 MA's), (51, 30780), (58, 30801), (62, 30813), (73, 30879), (80, 30903), (102, 31002), (104, 31008), (113, 31059),

Gene: RogerDodger_46 Start: 36138, Stop: 36527, Start Num: 45

Candidate Starts for RogerDodger_46:

(Start: 45 @36138 has 53 MA's), (54, 36165), (55, 36168), (58, 36177), (66, 36210), (68, 36237), (72, 36252), (77, 36270), (80, 36279), (81, 36282), (86, 36303), (99, 36369), (100, 36372), (101, 36375), (106, 36390), (107, 36393), (110, 36402), (111, 36405), (117, 36465),

Gene: Rota_39 Start: 32964, Stop: 33359, Start Num: 14

Candidate Starts for Rota_39:

(Start: 14 @32964 has 55 MA's), (39, 33030), (56, 33084), (65, 33114), (72, 33165), (75, 33177), (97, 33276), (104, 33297), (105, 33300), (109, 33312),

Gene: Rumi_40 Start: 30959, Stop: 31345, Start Num: 14

Candidate Starts for Rumi_40:

(Start: 14 @30959 has 55 MA's), (56, 31079), (65, 31109), (67, 31136), (72, 31160), (75, 31172), (84, 31202), (85, 31205), (97, 31271), (104, 31292), (105, 31295), (109, 31307),

Gene: Sadboi_41 Start: 33440, Stop: 33835, Start Num: 14

Candidate Starts for Sadboi_41:

(Start: 14 @33440 has 55 MA's), (39, 33506), (56, 33560), (65, 33590), (72, 33641), (75, 33653), (84, 33683), (97, 33752), (104, 33773), (105, 33776), (109, 33788),

Gene: Salvador_42 Start: 35807, Stop: 36196, Start Num: 45

Candidate Starts for Salvador_42:

(Start: 45 @35807 has 53 MA's), (54, 35834), (55, 35837), (58, 35846), (66, 35879), (68, 35906), (72, 35921), (77, 35939), (80, 35948), (86, 35972), (99, 36038), (100, 36041), (101, 36044), (106, 36059), (107, 36062), (110, 36071), (117, 36134),

Gene: Sampudon_40 Start: 33608, Stop: 34003, Start Num: 14

Candidate Starts for Sampudon_40:

(Start: 14 @33608 has 55 MA's), (39, 33674), (56, 33728), (65, 33758), (72, 33809), (75, 33821), (84, 33851), (97, 33920), (104, 33941), (105, 33944), (109, 33956),

Gene: Savbucketdawg_43 Start: 35588, Stop: 35977, Start Num: 45

Candidate Starts for Savbucketdawg_43:

(Start: 45 @35588 has 53 MA's), (54, 35615), (55, 35618), (58, 35627), (66, 35660), (68, 35687), (72, 35702), (77, 35720), (80, 35729), (86, 35753), (99, 35819), (100, 35822), (101, 35825), (106, 35840), (107, 35843), (110, 35852), (117, 35915),

Gene: Schnabeltier_25 Start: 21381, Stop: 21758, Start Num: 48

Candidate Starts for Schnabeltier_25:

(Start: 45 @21372 has 53 MA's), (Start: 48 @21381 has 1 MA's), (50, 21387), (55, 21408), (77, 21510), (80, 21519), (86, 21543), (100, 21612), (101, 21615), (105, 21627), (106, 21630), (107, 21633), (110, 21642), (120, 21741),

Gene: ShawBrad_27 Start: 21074, Stop: 21514, Start Num: 7

Candidate Starts for ShawBrad_27:

(Start: 7 @21074 has 26 MA's), (Start: 14 @21131 has 55 MA's), (24, 21158), (58, 21248), (66, 21281), (75, 21335), (76, 21338), (77, 21341), (80, 21350), (81, 21353), (86, 21374), (90, 21386), (100, 21443), (102, 21449), (104, 21455), (105, 21458), (106, 21461), (109, 21470), (111, 21476), (112, 21503),

Gene: Spooky_27 Start: 21156, Stop: 21593, Start Num: 7

Candidate Starts for Spooky_27:

(Start: 7 @21156 has 26 MA's), (Start: 14 @21213 has 55 MA's), (24, 21240), (Start: 25 @21243 has 1 MA's), (26, 21246), (34, 21261), (40, 21273), (59, 21333), (66, 21363), (76, 21420), (77, 21423), (81, 21435), (84, 21447), (85, 21450), (86, 21456), (90, 21468), (95, 21504), (96, 21513), (100, 21525), (102, 21531), (104, 21537), (105, 21540), (106, 21543), (109, 21552), (111, 21558),

Gene: Squiddly_29 Start: 22568, Stop: 23005, Start Num: 7

Candidate Starts for Squiddly_29:

(Start: 7 @22568 has 26 MA's), (Start: 14 @22625 has 55 MA's), (24, 22652), (Start: 25 @22655 has 1 MA's), (26, 22658), (34, 22673), (40, 22685), (59, 22745), (66, 22775), (76, 22832), (77, 22835), (81, 22847), (84, 22859), (85, 22862), (86, 22868), (90, 22880), (95, 22916), (96, 22925), (100, 22937), (102, 22943), (104, 22949), (105, 22952), (106, 22955), (109, 22964), (111, 22970),

Gene: Stormer_40 Start: 30962, Stop: 31348, Start Num: 14

Candidate Starts for Stormer_40:

(Start: 14 @30962 has 55 MA's), (56, 31082), (65, 31112), (67, 31139), (72, 31163), (75, 31175), (84, 31205), (85, 31208), (97, 31274), (104, 31295), (105, 31298), (109, 31310),

Gene: Suscepit_26 Start: 21932, Stop: 22306, Start Num: 14

Candidate Starts for Suscepit_26:

(6, 21848), (Start: 14 @21932 has 55 MA's), (30, 21980), (44, 22004), (Start: 45 @22010 has 53 MA's), (51, 22034), (54, 22043), (58, 22055), (99, 22247), (101, 22253), (102, 22256),

Gene: TChen_35 Start: 30090, Stop: 30461, Start Num: 21

Candidate Starts for TChen_35:

(Start: 11 @30057 has 1 MA's), (Start: 16 @30072 has 9 MA's), (Start: 21 @30090 has 1 MA's), (26, 30102), (27, 30105), (29, 30108), (33, 30114), (34, 30117), (36, 30120), (40, 30129), (Start: 45 @30141 has 53 MA's), (55, 30177), (56, 30180), (59, 30189), (60, 30192), (62, 30198), (66, 30219), (70, 30255), (75, 30273), (77, 30279), (79, 30285), (80, 30288), (81, 30291), (84, 30303), (86, 30312), (91, 30345), (92, 30348), (99, 30378), (104, 30393), (108, 30405),

Gene: TaronosaurusRx_25 Start: 21403, Stop: 21789, Start Num: 45

Candidate Starts for TaronosaurusRx_25:

(Start: 45 @21403 has 53 MA's), (Start: 48 @21412 has 1 MA's), (50, 21418), (59, 21451), (62, 21460), (77, 21541), (80, 21550), (86, 21574), (100, 21643), (101, 21646), (106, 21661), (107, 21664), (110, 21673), (111, 21676), (120, 21772),

Gene: Tayonia_26 Start: 21932, Stop: 22306, Start Num: 14

Candidate Starts for Tayonia_26:

(6, 21848), (Start: 14 @21932 has 55 MA's), (30, 21980), (44, 22004), (Start: 45 @22010 has 53 MA's), (51, 22034), (54, 22043), (58, 22055), (99, 22247), (101, 22253), (102, 22256),

Gene: ThetaBob_35 Start: 29008, Stop: 29412, Start Num: 11

Candidate Starts for ThetaBob_35:

(Start: 11 @29008 has 1 MA's), (Start: 14 @29020 has 55 MA's), (Start: 16 @29023 has 9 MA's), (20, 29038), (Start: 25 @29050 has 1 MA's), (29, 29059), (33, 29065), (40, 29080), (49, 29104), (55, 29128), (56, 29131), (58, 29137), (60, 29143), (62, 29149), (64, 29158), (65, 29161), (70, 29206), (75, 29224), (79, 29236), (80, 29239), (81, 29242), (85, 29257), (94, 29308), (98, 29326), (99, 29329), (104, 29344), (108, 29356),

Gene: Tillicus_38 Start: 32042, Stop: 32440, Start Num: 14

Candidate Starts for Tillicus_38:

(Start: 14 @32042 has 55 MA's), (51, 32147), (55, 32159), (56, 32162), (62, 32180), (67, 32219), (71, 32240), (81, 32273), (84, 32285), (96, 32351), (99, 32360), (102, 32369), (104, 32375), (109, 32390),

Gene: TinyDot_24 Start: 18787, Stop: 19161, Start Num: 45

Candidate Starts for TinyDot_24:

(4, 18565), (5, 18595), (Start: 45 @18787 has 53 MA's), (49, 18799), (50, 18802), (55, 18823), (56, 18826), (75, 18919), (82, 18940), (83, 18946), (86, 18958), (101, 19030), (103, 19036), (106, 19045), (107, 19048), (117, 19120), (118, 19135),

Gene: Toron_36 Start: 29915, Stop: 30304, Start Num: 16

Candidate Starts for Toron_36:

(9, 29876), (Start: 11 @29900 has 1 MA's), (Start: 16 @29915 has 9 MA's), (29, 29951), (33, 29957), (34, 29960), (36, 29963), (40, 29972), (49, 29996), (56, 30023), (60, 30035), (70, 30098), (75, 30116), (77, 30122), (79, 30128), (80, 30131), (81, 30134), (84, 30146), (85, 30149), (96, 30212), (99, 30221), (104, 30236), (108, 30248),

Gene: Trumpet_26 Start: 21932, Stop: 22306, Start Num: 14

Candidate Starts for Trumpet_26:

(6, 21848), (Start: 14 @21932 has 55 MA's), (30, 21980), (44, 22004), (Start: 45 @22010 has 53 MA's), (51, 22034), (54, 22043), (58, 22055), (99, 22247), (101, 22253), (102, 22256),

Gene: Twister6_45 Start: 35701, Stop: 36090, Start Num: 45

Candidate Starts for Twister6_45:

(Start: 45 @35701 has 53 MA's), (54, 35728), (55, 35731), (58, 35740), (66, 35773), (68, 35800), (72, 35815), (77, 35833), (80, 35842), (86, 35866), (99, 35932), (100, 35935), (101, 35938), (106, 35953), (107, 35956), (110, 35965), (117, 36028),

Gene: Valary_45 Start: 36743, Stop: 37132, Start Num: 45

Candidate Starts for Valary_45:

(Start: 45 @36743 has 53 MA's), (54, 36770), (55, 36773), (58, 36782), (66, 36815), (68, 36842), (72, 36857), (77, 36875), (80, 36884), (81, 36887), (86, 36908), (99, 36974), (100, 36977), (101, 36980), (106, 36995), (107, 36998), (110, 37007), (111, 37010), (117, 37070),

Gene: VanDeWege_46 Start: 36035, Stop: 36424, Start Num: 45

Candidate Starts for VanDeWege_46:

(Start: 45 @36035 has 53 MA's), (54, 36062), (55, 36065), (58, 36074), (66, 36107), (68, 36134), (72, 36149), (77, 36167), (80, 36176), (81, 36179), (86, 36200), (99, 36266), (100, 36269), (101, 36272), (106, 36287), (107, 36290), (110, 36299), (111, 36302), (117, 36362),

Gene: Whack_25 Start: 21433, Stop: 21819, Start Num: 47

Candidate Starts for Whack_25:

(Start: 21 @21367 has 1 MA's), (28, 21391), (41, 21415), (Start: 47 @21433 has 1 MA's), (58, 21472), (88, 21601), (89, 21604), (93, 21640), (104, 21679),

Gene: Whitney_28 Start: 21973, Stop: 22413, Start Num: 7

Candidate Starts for Whitney_28:

(Start: 7 @21973 has 26 MA's), (Start: 14 @22030 has 55 MA's), (24, 22057), (58, 22147), (66, 22180), (75, 22234), (76, 22237), (77, 22240), (80, 22249), (81, 22252), (86, 22273), (90, 22285), (100, 22342), (102, 22348), (104, 22354), (105, 22357), (106, 22360), (109, 22369), (111, 22375), (112, 22402),

Gene: William_25 Start: 20929, Stop: 21303, Start Num: 45

Candidate Starts for William_25:

(Start: 45 @20929 has 53 MA's), (55, 20965), (75, 21061), (76, 21064), (86, 21100), (102, 21175), (103, 21178), (107, 21190),

Gene: Wizard_42 Start: 35941, Stop: 36330, Start Num: 45

Candidate Starts for Wizard_42:

(Start: 45 @35941 has 53 MA's), (54, 35968), (55, 35971), (58, 35980), (66, 36013), (68, 36040), (72, 36055), (77, 36073), (80, 36082), (81, 36085), (86, 36106), (99, 36172), (100, 36175), (101, 36178), (106, 36193), (107, 36196), (110, 36205), (111, 36208), (117, 36268),

Gene: Wojtek_39 Start: 32308, Stop: 32703, Start Num: 14

Candidate Starts for Wojtek_39:

(Start: 14 @32308 has 55 MA's), (39, 32374), (56, 32428), (65, 32458), (72, 32509), (75, 32521), (97, 32620), (104, 32641), (105, 32644), (109, 32656),

Gene: Yeezy_26 Start: 21154, Stop: 21528, Start Num: 14

Candidate Starts for Yeezy_26:

(6, 21070), (Start: 14 @21154 has 55 MA's), (30, 21202), (44, 21226), (Start: 45 @21232 has 53 MA's), (51, 21256), (54, 21265), (58, 21277), (99, 21469), (101, 21475), (102, 21478),

Gene: Yikes_41 Start: 33687, Stop: 34082, Start Num: 14

Candidate Starts for Yikes_41:

(Start: 14 @33687 has 55 MA's), (39, 33753), (56, 33807), (65, 33837), (72, 33888), (75, 33900), (84, 33930), (97, 33999), (104, 34020), (105, 34023), (109, 34035),

Gene: Yoshi_42 Start: 29099, Stop: 29485, Start Num: 16

Candidate Starts for Yoshi_42:

(Start: 11 @29084 has 1 MA's), (Start: 14 @29096 has 55 MA's), (Start: 16 @29099 has 9 MA's), (27, 29132), (29, 29135), (31, 29138), (33, 29141), (36, 29147), (37, 29150), (49, 29180), (53, 29198), (55, 29204), (62, 29225), (63, 29231), (66, 29246), (75, 29300), (77, 29306), (79, 29312), (80, 29315), (81, 29318), (85, 29333), (91, 29372), (94, 29384), (98, 29402), (104, 29420), (108, 29432),

Gene: ZAYM_26 Start: 21872, Stop: 22258, Start Num: 45

Candidate Starts for ZAYM_26:

(Start: 45 @21872 has 53 MA's), (Start: 48 @21881 has 1 MA's), (50, 21887), (59, 21920), (62, 21929), (68, 21977), (77, 22010), (80, 22019), (86, 22043), (100, 22112), (101, 22115), (106, 22130), (107, 22133), (110, 22142), (111, 22145), (120, 22241),

Gene: Zameen_26 Start: 21932, Stop: 22306, Start Num: 14

Candidate Starts for Zameen_26:

(6, 21848), (Start: 14 @21932 has 55 MA's), (30, 21980), (44, 22004), (Start: 45 @22010 has 53 MA's), (51, 22034), (54, 22043), (58, 22055), (99, 22247), (101, 22253), (102, 22256),

Gene: Zany_39 Start: 33212, Stop: 33607, Start Num: 14

Candidate Starts for Zany_39:

(Start: 14 @33212 has 55 MA's), (39, 33278), (56, 33332), (72, 33413), (75, 33425), (84, 33455), (97, 33524), (104, 33545), (105, 33548), (109, 33560),

Gene: Zapner_42 Start: 30180, Stop: 30569, Start Num: 16

Candidate Starts for Zapner_42:

(Start: 11 @30165 has 1 MA's), (Start: 14 @30177 has 55 MA's), (Start: 16 @30180 has 9 MA's), (20, 30195), (Start: 25 @30207 has 1 MA's), (29, 30216), (33, 30222), (40, 30237), (49, 30261), (55, 30285), (56, 30288), (58, 30294), (60, 30300), (62, 30306), (64, 30315), (65, 30318), (70, 30363), (75, 30381), (79, 30393), (80, 30396), (81, 30399), (85, 30414), (94, 30465), (98, 30483), (99, 30486), (104, 30501), (108, 30513),

Gene: ZiggyZoo_24 Start: 20727, Stop: 21077, Start Num: 45

Candidate Starts for ZiggyZoo_24:

(Start: 45 @20727 has 53 MA's), (56, 20760), (75, 20853), (77, 20859), (78, 20862), (84, 20883), (86, 20892), (92, 20925), (106, 20976), (111, 20991), (116, 21042),