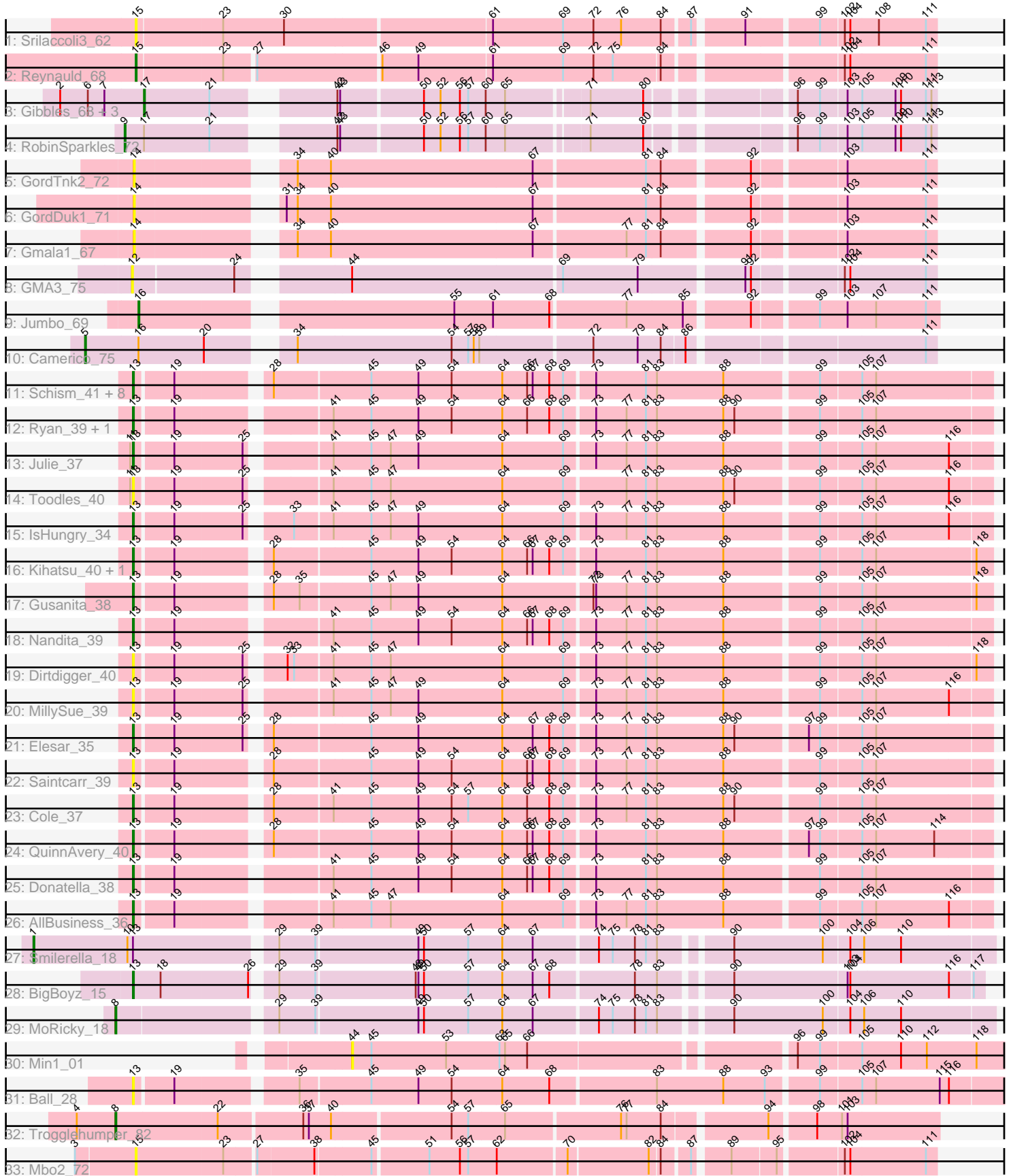


Pham 305108



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 305108 Report

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

Pham number 305108 has 46 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Srilaccoli3_62
- Track 2 : Reynauld_68
- Track 3 : Gibbles_68, Orchid_70, Kampe_71, PatrickStar_71
- Track 4 : RobinSparkles_72
- Track 5 : GordTnk2_72
- Track 6 : GordDuk1_71
- Track 7 : Gmala1_67
- Track 8 : GMA3_75
- Track 9 : Jumbo_69
- Track 10 : Camerico_75
- Track 11 : Schism_41, Ichiang_36, Halloweekend_36, Popper_37, ToastyOats_40, BigSherm_38, Guinevere_39, Lenoxika_39, GoodLuckBabe_39
- Track 12 : Ryan_39, Yonex_39
- Track 13 : Julie_37
- Track 14 : Toodles_40
- Track 15 : IsHungry_34
- Track 16 : Kihatsu_40, Zaheer_39
- Track 17 : Gusanita_38
- Track 18 : Nandita_39
- Track 19 : Dirdigger_40
- Track 20 : MillySue_39
- Track 21 : Elesar_35
- Track 22 : Saintcarr_39
- Track 23 : Cole_37
- Track 24 : QuinnAvery_40
- Track 25 : Donatella_38
- Track 26 : AllBusiness_36
- Track 27 : Smilerella_18
- Track 28 : BigBoyz_15
- Track 29 : MoRicky_18
- Track 30 : Min1_01
- Track 31 : Ball_28
- Track 32 : Trogglehumper_82
- Track 33 : Mbo2_72

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

The start number called the most often in the published annotations is 13, it was called in 21 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AllBusiness_36, Ball_28, BigBoyz_15, BigSherm_38, Cole_37, Dirdigger_40, Donatella_38, Elesar_35, GoodLuckBabe_39, Guinevere_39, Gusanita_38, Halloweekend_36, Ichiang_36, IsHungry_34, Julie_37, Kihatsu_40, Lenoxika_39, MillySue_39, Nandita_39, Popper_37, QuinnAvery_40, Ryan_39, Saintcarr_39, Schism_41, ToastyOats_40, Toodles_40, Yonex_39, Zaheer_39,

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

- Smilerella_18,

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

- Camerico_75, GMA3_75, Gibbles_68, Gmala1_67, GordDuk1_71, GordTnk2_72, Jumbo_69, Kampe_71, Mbo2_72, Min1_01, MoRicky_18, Orchid_70, PatrickStar_71, Reynauld_68, RobinSparkles_72, Srilaccoli3_62, Trogglehumper_82,

Summary by start number:

Start 1:

- Found in 1 of 46 (2.2%) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Smilerella_18 (GH),

Start 5:

- Found in 1 of 46 (2.2%) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Camerico_75 (DF4),

Start 8:

- Found in 2 of 46 (4.3%) of genes in pham
- Manual Annotations of this start: 2 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MoRicky_18 (GH), Trogglehumper_82 (singleton),

Start 9:

- Found in 1 of 46 (2.2%) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RobinSparkles_72 (CX),

Start 12:

- Found in 1 of 46 (2.2%) 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_75 (DF2),

Start 13:

- Found in 29 of 46 (63.0%) of genes in pham
- Manual Annotations of this start: 21 of 32
- Called 96.6% of time when present
- Phage (with cluster) where this start called: AllBusiness_36 (FF), Ball_28 (singleton), BigBoyz_15 (GH), BigSherm_38 (FF), Cole_37 (FF), Dirtdigger_40 (FF), Donatella_38 (FF), Elesar_35 (FF), GoodLuckBabe_39 (FF), Guinevere_39 (FF), Gusanita_38 (FF), Halloween_36 (FF), Ichiang_36 (FF), IsHungry_34 (FF), Julie_37 (FF), Kihatsu_40 (FF), Lenoxika_39 (FF), MillySue_39 (FF), Nandita_39 (FF), Popper_37 (FF), QuinnAvery_40 (FF), Ryan_39 (FF), Saintcarr_39 (FF), Schism_41 (FF), ToastyOats_40 (FF), Toodles_40 (FF), Yonex_39 (FF), Zaheer_39 (FF),

Start 14:

- Found in 3 of 46 (6.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gmala1_67 (DF1), GordDuk1_71 (DF1), GordTnk2_72 (DF1),

Start 15:

- Found in 3 of 46 (6.5%) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mbo2_72 (singleton), Reynauld_68 (CH), Srilaccoli3_62 (CH),

Start 16:

- Found in 2 of 46 (4.3%) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Jumbo_69 (DF3),

Start 17:

- Found in 5 of 46 (10.9%) of genes in pham
- Manual Annotations of this start: 4 of 32
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Gibbles_68 (CX), Kampe_71 (CX), Orchid_70 (CX), PatrickStar_71 (CX),

Start 44:

- Found in 2 of 46 (4.3%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Min1_01 (singleton),

Summary by clusters:

There are 9 clusters represented in this pham: singleton, CH, DF4, DF1, DF3, DF2, CX, FF, GH,

Info for manual annotations of cluster CH:

- Start number 15 was manually annotated 1 time for cluster CH.

Info for manual annotations of cluster CX:

- Start number 9 was manually annotated 1 time for cluster CX.
- Start number 17 was manually annotated 4 times for cluster CX.

Info for manual annotations of cluster DF3:

- Start number 16 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DF4:

- Start number 5 was manually annotated 1 time for cluster DF4.

Info for manual annotations of cluster FF:

- Start number 13 was manually annotated 20 times for cluster FF.

Info for manual annotations of cluster GH:

- Start number 1 was manually annotated 1 time for cluster GH.
- Start number 8 was manually annotated 1 time for cluster GH.
- Start number 13 was manually annotated 1 time for cluster GH.

Gene Information:

Gene: AllBusiness_36 Start: 29466, Stop: 28591, Start Num: 13

Candidate Starts for AllBusiness_36:

(Start: 13 @29466 has 21 MA's), (19, 29427), (41, 29280), (45, 29241), (47, 29220), (64, 29100), (69, 29034), (73, 29004), (77, 28971), (81, 28950), (83, 28938), (88, 28866), (99, 28770), (105, 28728), (107, 28713), (116, 28635),

Gene: Ball_28 Start: 23533, Stop: 22643, Start Num: 13

Candidate Starts for Ball_28:

(Start: 13 @23533 has 21 MA's), (19, 23494), (35, 23377), (45, 23305), (49, 23254), (54, 23218), (64, 23164), (68, 23113), (83, 23002), (88, 22930), (93, 22885), (99, 22834), (105, 22792), (107, 22777), (115, 22708), (116, 22699),

Gene: BigBoyz_15 Start: 12973, Stop: 12104, Start Num: 13

Candidate Starts for BigBoyz_15:

(Start: 13 @12973 has 21 MA's), (18, 12943), (26, 12850), (29, 12832), (39, 12793), (48, 12688), (49, 12685), (50, 12679), (57, 12631), (64, 12595), (67, 12562), (68, 12544), (78, 12457), (83, 12433), (90, 12367), (103, 12247), (104, 12244), (116, 12139), (117, 12115),

Gene: BigSherm_38 Start: 28330, Stop: 27455, Start Num: 13

Candidate Starts for BigSherm_38:

(Start: 13 @28330 has 21 MA's), (19, 28291), (28, 28204), (45, 28105), (49, 28054), (54, 28018), (64, 27964), (66, 27937), (67, 27931), (68, 27913), (69, 27898), (73, 27868), (81, 27814), (83, 27802), (88, 27730), (99, 27634), (105, 27592), (107, 27577),

Gene: Camerico_75 Start: 60592, Stop: 59744, Start Num: 5

Candidate Starts for Camerico_75:

(Start: 5 @60592 has 1 MA's), (Start: 16 @60535 has 1 MA's), (20, 60466), (34, 60397), (54, 60232), (57, 60214), (58, 60208), (59, 60202), (72, 60085), (79, 60037), (84, 60013), (86, 59989), (111, 59755),

Gene: Cole_37 Start: 28322, Stop: 27447, Start Num: 13

Candidate Starts for Cole_37:

(Start: 13 @28322 has 21 MA's), (19, 28283), (28, 28196), (41, 28136), (45, 28097), (49, 28046), (54, 28010), (57, 27992), (64, 27956), (66, 27929), (68, 27905), (69, 27890), (73, 27860), (77, 27827), (81, 27806), (83, 27794), (88, 27722), (90, 27710), (99, 27626), (105, 27584), (107, 27569),

Gene: Dirdigger_40 Start: 29049, Stop: 28174, Start Num: 13

Candidate Starts for Dirdigger_40:

(Start: 13 @29049 has 21 MA's), (19, 29010), (25, 28938), (32, 28908), (33, 28902), (41, 28863), (45, 28824), (47, 28803), (64, 28683), (69, 28617), (73, 28587), (77, 28554), (81, 28533), (83, 28521), (88, 28449), (99, 28353), (105, 28311), (107, 28296), (118, 28191),

Gene: Donatella_38 Start: 28796, Stop: 27921, Start Num: 13

Candidate Starts for Donatella_38:

(Start: 13 @28796 has 21 MA's), (19, 28757), (41, 28610), (45, 28571), (49, 28520), (54, 28484), (64, 28430), (66, 28403), (67, 28397), (68, 28379), (69, 28364), (73, 28334), (81, 28280), (83, 28268), (88, 28196), (99, 28100), (105, 28058), (107, 28043),

Gene: Elesar_35 Start: 29248, Stop: 28373, Start Num: 13

Candidate Starts for Elesar_35:

(Start: 13 @29248 has 21 MA's), (19, 29209), (25, 29137), (28, 29122), (45, 29023), (49, 28972), (64, 28882), (67, 28849), (68, 28831), (69, 28816), (73, 28786), (77, 28753), (81, 28732), (83, 28720), (88, 28648), (90, 28636), (97, 28564), (99, 28552), (105, 28510), (107, 28495),

Gene: GMA3_75 Start: 57620, Stop: 56823, Start Num: 12

Candidate Starts for GMA3_75:

(12, 57620), (24, 57515), (44, 57422), (69, 57200), (79, 57119), (91, 57014), (92, 57008), (102, 56921), (104, 56915), (111, 56834),

Gene: Gibbles_68 Start: 56757, Stop: 55996, Start Num: 17

Candidate Starts for Gibbles_68:

(2, 56847), (6, 56817), (7, 56799), (Start: 17 @56757 has 4 MA's), (21, 56688), (42, 56586), (43, 56583), (50, 56499), (52, 56481), (56, 56460), (57, 56451), (60, 56433), (65, 56412), (71, 56331), (80, 56274), (96, 56142), (99, 56118), (103, 56091), (105, 56076), (109, 56040), (110, 56034), (111, 56007), (113, 56001),

Gene: Gmala1_67 Start: 54450, Stop: 53653, Start Num: 14

Candidate Starts for Gmala1_67:

(14, 54450), (34, 54309), (40, 54273), (67, 54057), (77, 53961), (81, 53940), (84, 53925), (92, 53838), (103, 53748), (111, 53664),

Gene: GoodLuckBabe_39 Start: 28904, Stop: 28029, Start Num: 13

Candidate Starts for GoodLuckBabe_39:

(Start: 13 @28904 has 21 MA's), (19, 28865), (28, 28778), (45, 28679), (49, 28628), (54, 28592), (64, 28538), (66, 28511), (67, 28505), (68, 28487), (69, 28472), (73, 28442), (81, 28388), (83, 28376), (88, 28304), (99, 28208), (105, 28166), (107, 28151),

Gene: GordDuk1_71 Start: 55008, Stop: 54211, Start Num: 14

Candidate Starts for GordDuk1_71:

(14, 55008), (31, 54879), (34, 54867), (40, 54831), (67, 54615), (81, 54498), (84, 54483), (92, 54396), (103, 54306), (111, 54222),

Gene: GordTnk2_72 Start: 55169, Stop: 54372, Start Num: 14

Candidate Starts for GordTnk2_72:

(14, 55169), (34, 55028), (40, 54992), (67, 54776), (81, 54659), (84, 54644), (92, 54557), (103, 54467), (111, 54383),

Gene: Guinevere_39 Start: 28494, Stop: 27619, Start Num: 13

Candidate Starts for Guinevere_39:

(Start: 13 @28494 has 21 MA's), (19, 28455), (28, 28368), (45, 28269), (49, 28218), (54, 28182), (64, 28128), (66, 28101), (67, 28095), (68, 28077), (69, 28062), (73, 28032), (81, 27978), (83, 27966), (88, 27894), (99, 27798), (105, 27756), (107, 27741),

Gene: Gusanita_38 Start: 28900, Stop: 28025, Start Num: 13

Candidate Starts for Gusanita_38:

(Start: 13 @28900 has 21 MA's), (19, 28861), (28, 28774), (35, 28747), (45, 28675), (47, 28654), (49, 28624), (64, 28534), (72, 28441), (73, 28438), (77, 28405), (81, 28384), (83, 28372), (88, 28300), (99, 28204), (105, 28162), (107, 28147), (118, 28042),

Gene: Halloweekend_36 Start: 27956, Stop: 27081, Start Num: 13

Candidate Starts for Halloweekend_36:

(Start: 13 @27956 has 21 MA's), (19, 27917), (28, 27830), (45, 27731), (49, 27680), (54, 27644), (64, 27590), (66, 27563), (67, 27557), (68, 27539), (69, 27524), (73, 27494), (81, 27440), (83, 27428), (88, 27356), (99, 27260), (105, 27218), (107, 27203),

Gene: Ichiang_36 Start: 27975, Stop: 27100, Start Num: 13

Candidate Starts for Ichiang_36:

(Start: 13 @27975 has 21 MA's), (19, 27936), (28, 27849), (45, 27750), (49, 27699), (54, 27663), (64, 27609), (66, 27582), (67, 27576), (68, 27558), (69, 27543), (73, 27513), (81, 27459), (83, 27447), (88, 27375), (99, 27279), (105, 27237), (107, 27222),

Gene: IsHungry_34 Start: 26992, Stop: 26117, Start Num: 13

Candidate Starts for IsHungry_34:

(Start: 13 @26992 has 21 MA's), (19, 26953), (25, 26881), (33, 26845), (41, 26806), (45, 26767), (47, 26746), (49, 26716), (64, 26626), (69, 26560), (73, 26530), (77, 26497), (81, 26476), (83, 26464), (88, 26392), (99, 26296), (105, 26254), (107, 26239), (116, 26161),

Gene: Julie_37 Start: 28905, Stop: 28030, Start Num: 13

Candidate Starts for Julie_37:

(11, 28908), (Start: 13 @28905 has 21 MA's), (19, 28866), (25, 28794), (41, 28719), (45, 28680), (47, 28659), (49, 28629), (64, 28539), (69, 28473), (73, 28443), (77, 28410), (81, 28389), (83, 28377), (88, 28305), (99, 28209), (105, 28167), (107, 28152), (116, 28074),

Gene: Jumbo_69 Start: 59172, Stop: 58372, Start Num: 16

Candidate Starts for Jumbo_69:

(Start: 16 @59172 has 1 MA's), (55, 58866), (61, 58824), (68, 58764), (77, 58686), (85, 58626), (92, 58563), (99, 58500), (103, 58470), (107, 58440), (111, 58386),

Gene: Kampe_71 Start: 57027, Stop: 56266, Start Num: 17

Candidate Starts for Kampe_71:

(2, 57117), (6, 57087), (7, 57069), (Start: 17 @57027 has 4 MA's), (21, 56958), (42, 56856), (43, 56853), (50, 56769), (52, 56751), (56, 56730), (57, 56721), (60, 56703), (65, 56682), (71, 56601), (80,

56544), (96, 56412), (99, 56388), (103, 56361), (105, 56346), (109, 56310), (110, 56304), (111, 56277), (113, 56271),

Gene: Kihatsu_40 Start: 29365, Stop: 28490, Start Num: 13

Candidate Starts for Kihatsu_40:

(Start: 13 @29365 has 21 MA's), (19, 29326), (28, 29239), (45, 29140), (49, 29089), (54, 29053), (64, 28999), (66, 28972), (67, 28966), (68, 28948), (69, 28933), (73, 28903), (81, 28849), (83, 28837), (88, 28765), (99, 28669), (105, 28627), (107, 28612), (118, 28507),

Gene: Lenoxika_39 Start: 28640, Stop: 27765, Start Num: 13

Candidate Starts for Lenoxika_39:

(Start: 13 @28640 has 21 MA's), (19, 28601), (28, 28514), (45, 28415), (49, 28364), (54, 28328), (64, 28274), (66, 28247), (67, 28241), (68, 28223), (69, 28208), (73, 28178), (81, 28124), (83, 28112), (88, 28040), (99, 27944), (105, 27902), (107, 27887),

Gene: Mbo2_72 Start: 53083, Stop: 52283, Start Num: 15

Candidate Starts for Mbo2_72:

(3, 53146), (Start: 15 @53083 has 1 MA's), (23, 52990), (27, 52960), (38, 52900), (45, 52843), (51, 52786), (56, 52753), (57, 52744), (62, 52714), (70, 52642), (82, 52558), (84, 52549), (87, 52522), (89, 52489), (95, 52444), (102, 52381), (104, 52375), (111, 52294),

Gene: MillySue_39 Start: 28748, Stop: 27873, Start Num: 13

Candidate Starts for MillySue_39:

(Start: 13 @28748 has 21 MA's), (19, 28709), (25, 28637), (41, 28562), (45, 28523), (47, 28502), (49, 28472), (64, 28382), (69, 28316), (73, 28286), (77, 28253), (81, 28232), (83, 28220), (88, 28148), (99, 28052), (105, 28010), (107, 27995), (116, 27917),

Gene: Min1_01 Start: 771, Stop: 1, Start Num: 44

Candidate Starts for Min1_01:

(44, 771), (45, 750), (53, 669), (63, 612), (65, 606), (66, 582), (96, 318), (99, 294), (105, 252), (110, 210), (112, 183), (118, 129),

Gene: MoRicky_18 Start: 13746, Stop: 12850, Start Num: 8

Candidate Starts for MoRicky_18:

(Start: 8 @13746 has 2 MA's), (29, 13587), (39, 13548), (49, 13440), (50, 13434), (57, 13386), (64, 13350), (67, 13317), (74, 13251), (75, 13236), (78, 13212), (81, 13200), (83, 13188), (90, 13122), (100, 13026), (104, 12999), (106, 12984), (110, 12945),

Gene: Nandita_39 Start: 28503, Stop: 27628, Start Num: 13

Candidate Starts for Nandita_39:

(Start: 13 @28503 has 21 MA's), (19, 28464), (41, 28317), (45, 28278), (49, 28227), (54, 28191), (64, 28137), (66, 28110), (67, 28104), (68, 28086), (69, 28071), (73, 28041), (77, 28008), (81, 27987), (83, 27975), (88, 27903), (99, 27807), (105, 27765), (107, 27750),

Gene: Orchid_70 Start: 57028, Stop: 56267, Start Num: 17

Candidate Starts for Orchid_70:

(2, 57118), (6, 57088), (7, 57070), (Start: 17 @57028 has 4 MA's), (21, 56959), (42, 56857), (43, 56854), (50, 56770), (52, 56752), (56, 56731), (57, 56722), (60, 56704), (65, 56683), (71, 56602), (80, 56545), (96, 56413), (99, 56389), (103, 56362), (105, 56347), (109, 56311), (110, 56305), (111, 56278), (113, 56272),

Gene: PatrickStar_71 Start: 57027, Stop: 56266, Start Num: 17

Candidate Starts for PatrickStar_71:

(2, 57117), (6, 57087), (7, 57069), (Start: 17 @57027 has 4 MA's), (21, 56958), (42, 56856), (43, 56853), (50, 56769), (52, 56751), (56, 56730), (57, 56721), (60, 56703), (65, 56682), (71, 56601), (80, 56544), (96, 56412), (99, 56388), (103, 56361), (105, 56346), (109, 56310), (110, 56304), (111, 56277), (113, 56271),

Gene: Popper_37 Start: 28406, Stop: 27531, Start Num: 13

Candidate Starts for Popper_37:

(Start: 13 @28406 has 21 MA's), (19, 28367), (28, 28280), (45, 28181), (49, 28130), (54, 28094), (64, 28040), (66, 28013), (67, 28007), (68, 27989), (69, 27974), (73, 27944), (81, 27890), (83, 27878), (88, 27806), (99, 27710), (105, 27668), (107, 27653),

Gene: QuinnAvery_40 Start: 29406, Stop: 28531, Start Num: 13

Candidate Starts for QuinnAvery_40:

(Start: 13 @29406 has 21 MA's), (19, 29367), (28, 29280), (45, 29181), (49, 29130), (54, 29094), (64, 29040), (66, 29013), (67, 29007), (68, 28989), (69, 28974), (73, 28944), (81, 28890), (83, 28878), (88, 28806), (97, 28722), (99, 28710), (105, 28668), (107, 28653), (114, 28590),

Gene: Reynauld_68 Start: 57456, Stop: 56647, Start Num: 15

Candidate Starts for Reynauld_68:

(Start: 15 @57456 has 1 MA's), (23, 57366), (27, 57336), (46, 57210), (49, 57171), (61, 57093), (69, 57018), (72, 56985), (75, 56964), (84, 56916), (102, 56745), (104, 56739), (111, 56658),

Gene: RobinSparkles_72 Start: 56946, Stop: 56164, Start Num: 9

Candidate Starts for RobinSparkles_72:

(Start: 9 @56946 has 1 MA's), (Start: 17 @56925 has 4 MA's), (21, 56856), (42, 56754), (43, 56751), (50, 56667), (52, 56649), (56, 56628), (57, 56619), (60, 56601), (65, 56580), (71, 56499), (80, 56442), (96, 56310), (99, 56286), (103, 56259), (105, 56244), (109, 56208), (110, 56202), (111, 56175), (113, 56169),

Gene: Ryan_39 Start: 29105, Stop: 28230, Start Num: 13

Candidate Starts for Ryan_39:

(Start: 13 @29105 has 21 MA's), (19, 29066), (41, 28919), (45, 28880), (49, 28829), (54, 28793), (64, 28739), (66, 28712), (68, 28688), (69, 28673), (73, 28643), (77, 28610), (81, 28589), (83, 28577), (88, 28505), (90, 28493), (99, 28409), (105, 28367), (107, 28352),

Gene: Saintcarr_39 Start: 28819, Stop: 27944, Start Num: 13

Candidate Starts for Saintcarr_39:

(Start: 13 @28819 has 21 MA's), (19, 28780), (28, 28693), (45, 28594), (49, 28543), (54, 28507), (64, 28453), (66, 28426), (67, 28420), (68, 28402), (69, 28387), (73, 28357), (77, 28324), (81, 28303), (83, 28291), (88, 28219), (99, 28123), (105, 28081), (107, 28066),

Gene: Schism_41 Start: 29284, Stop: 28409, Start Num: 13

Candidate Starts for Schism_41:

(Start: 13 @29284 has 21 MA's), (19, 29245), (28, 29158), (45, 29059), (49, 29008), (54, 28972), (64, 28918), (66, 28891), (67, 28885), (68, 28867), (69, 28852), (73, 28822), (81, 28768), (83, 28756), (88, 28684), (99, 28588), (105, 28546), (107, 28531),

Gene: Smilerella_18 Start: 13836, Stop: 12850, Start Num: 1

Candidate Starts for Smilerella_18:

(Start: 1 @13836 has 1 MA's), (10, 13734), (Start: 13 @13728 has 21 MA's), (29, 13587), (39, 13548), (49, 13440), (50, 13434), (57, 13386), (64, 13350), (67, 13317), (74, 13251), (75, 13236), (78, 13212), (81, 13200), (83, 13188), (90, 13122), (100, 13026), (104, 12999), (106, 12984), (110, 12945),

Gene: Srilaccoli3_62 Start: 56496, Stop: 55675, Start Num: 15

Candidate Starts for Srilaccoli3_62:

(Start: 15 @56496 has 1 MA's), (23, 56406), (30, 56340), (61, 56124), (69, 56049), (72, 56016), (76, 55986), (84, 55944), (87, 55917), (91, 55869), (99, 55797), (102, 55773), (104, 55767), (108, 55737), (111, 55686),

Gene: ToastyOats_40 Start: 28880, Stop: 28005, Start Num: 13

Candidate Starts for ToastyOats_40:

(Start: 13 @28880 has 21 MA's), (19, 28841), (28, 28754), (45, 28655), (49, 28604), (54, 28568), (64, 28514), (66, 28487), (67, 28481), (68, 28463), (69, 28448), (73, 28418), (81, 28364), (83, 28352), (88, 28280), (99, 28184), (105, 28142), (107, 28127),

Gene: Toodles_40 Start: 29446, Stop: 28571, Start Num: 13

Candidate Starts for Toodles_40:

(11, 29449), (Start: 13 @29446 has 21 MA's), (19, 29407), (25, 29335), (41, 29260), (45, 29221), (47, 29200), (64, 29080), (69, 29014), (77, 28951), (81, 28930), (83, 28918), (88, 28846), (90, 28834), (99, 28750), (105, 28708), (107, 28693), (116, 28615),

Gene: Trogglehumper_82 Start: 64380, Stop: 63535, Start Num: 8

Candidate Starts for Trogglehumper_82:

(4, 64422), (Start: 8 @64380 has 2 MA's), (22, 64272), (36, 64185), (37, 64179), (40, 64155), (54, 64032), (57, 64014), (65, 63975), (76, 63855), (77, 63849), (84, 63813), (94, 63711), (98, 63666), (101, 63639), (103, 63633),

Gene: Yonex_39 Start: 29105, Stop: 28230, Start Num: 13

Candidate Starts for Yonex_39:

(Start: 13 @29105 has 21 MA's), (19, 29066), (41, 28919), (45, 28880), (49, 28829), (54, 28793), (64, 28739), (66, 28712), (68, 28688), (69, 28673), (73, 28643), (77, 28610), (81, 28589), (83, 28577), (88, 28505), (90, 28493), (99, 28409), (105, 28367), (107, 28352),

Gene: Zaheer_39 Start: 29719, Stop: 28844, Start Num: 13

Candidate Starts for Zaheer_39:

(Start: 13 @29719 has 21 MA's), (19, 29680), (28, 29593), (45, 29494), (49, 29443), (54, 29407), (64, 29353), (66, 29326), (67, 29320), (68, 29302), (69, 29287), (73, 29257), (81, 29203), (83, 29191), (88, 29119), (99, 29023), (105, 28981), (107, 28966), (118, 28861),