

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 283762 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283762 has 73 members, 21 are drafts.

Phages represented in each track:

- Track 1 : OhShagHennessy_36
- Track 2 : Halena_36, Enceladus_36, Wyatt2_37, Rose5_36, Appletree2_36, Acquire49_37, Calm_37, Silverleaf_36, JoeDirt_36, Tyson_36, Wamburgrxpress_37, CicholasNage_37, UPIE_37, LeBron_37, DirkDirk_36, Zaria_37, AvadaKedavra_37
- Track 3 : MAckerman_37
- Track 4 : Poochiewood_36
- Track 5 : Sarshaun_39, Loadrie_39, Kahlid_39, Hafay_39, Zakai_39, OverPar_40, Lynnae_39, Wigglewiggles_39, GuuelaD_39, Wilder_39, Soap141_39, Crossroads_39
- Track 6 : BobsGarage_39, Gabriela_39, BigCheese_39, DrSeegs_39, Breezona_39, SoJulia_40, Winky_39, Miley16_39, Faith1_39, Netyap_39
- Track 7 : Bazzle_39
- Track 8 : DHan_40, Claus_39
- Track 9 : Underpass_39, Gardann_39, Nicholasp3_39, Rumpelstiltskin_39
- Track 10 : Archie_39
- Track 11 : Lewan_39
- Track 12 : Baoshan_38
- Track 13 : Vetrix_39
- Track 14 : Tourach_39
- Track 15 : Rossetti_39
- Track 16 : Finemlucis_39
- Track 17 : DanBing_39
- Track 18 : LilDestine_39
- Track 19 : MkaliMitinis3_39
- Track 20 : ZhongYanYuan_38
- Track 21 : KirDoubleO7_35
- Track 22 : Douge_36, PYPDinur_36, BrainDrainer_37
- Track 23 : FarmResident_36, Sheng711_36
- Track 24 : ChutneyChips_36
- Track 25 : DyoEdafos_38, Kropertea_36
- Track 26 : Douzhi_36
- Track 27 : Quby_36
- Track 28 : Chaser_36
- Track 29 : Bromden_38

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

The start number called the most often in the published annotations is 6, it was called in 33 of the 52 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Archie_39, Baoshan_38, Bazzle_39, BigCheese_39, BobsGarage_39, BrainDrainer_37, Breezona_39, Bromden_38, Chaser_36, Claus_39, Crossroads_39, DHan_40, DanBing_39, Douge_36, Douzhi_36, DrSeegs_39, DyoEdafos_38, Faith1_39, Finemlucis_39, Gabriela_39, Gardann_39, GuuelaD_39, Hafay_39, Kahlid_39, Kropertea_36, Lewan_39, LilDestine_39, Loadrie_39, Lynnae_39, Miley16_39, MkaliMitinis3_39, Netyap_39, Nicholasp3_39, OverPar_40, PYPDinur_36, Quby_36, Rumpelstiltskin_39, Sarshaun_39, SoJulia_40, Soap141_39, Tourach_39, Underpass_39, Vetrix_39, Wigglewiggle_39, Wilder_39, Winky_39, Zakai_39, ZhongYanYuan_38,

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

- ChutneyChips_36, FarmResident_36, Rossetti_39, Sheng711_36,

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

- Acquire49_37, Appletree2_36, AvadaKedavra_37, Calm_37, CicholasNage_37, DirkDirk_36, Enceladus_36, Halena_36, JoeDirt_36, KirDoubleO7_35, LeBron_37, MAckerman_37, OhShagHennessy_36, Poochiewood_36, Rose5_36, Silverleaf_36, Tyson_36, UPIE_37, Wamburgxpress_37, Wyatt2_37, Zaria_37,

Summary by start number:

Start 6:

- Found in 52 of 73 (71.2%) of genes in pham
- Manual Annotations of this start: 33 of 52
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Archie_39 (L2), Baoshan_38 (L2), Bazzle_39 (L2), BigCheese_39 (L2), BobsGarage_39 (L2), BrainDrainer_37 (L4), Breezona_39 (L2), Bromden_38 (L4), Chaser_36 (L4), Claus_39 (L2), Crossroads_39 (L2), DHan_40 (L2), DanBing_39 (L2), Douge_36 (L4), Douzhi_36 (L4), DrSeegs_39 (L2), DyoEdafos_38 (L4), Faith1_39 (L2), Finemlucis_39 (L2), Gabriela_39 (L2), Gardann_39 (L2), GuuelaD_39 (L2), Hafay_39 (L2), Kahlid_39 (L2), Kropertea_36 (L4), Lewan_39 (L2), LilDestine_39 (L2), Loadrie_39 (L2), Lynnae_39 (L2), Miley16_39 (L2), MkaliMitinis3_39 (L2), Netyap_39 (L2), Nicholasp3_39 (L2), OverPar_40 (L2), PYPDinur_36 (L4), Quby_36 (L4), Rumpelstiltskin_39 (L2), Sarshaun_39 (L2), SoJulia_40 (L2), Soap141_39 (L2), Tourach_39 (L2), Underpass_39 (L2), Vetrix_39 (L2), Wigglewiggle_39 (L2), Wilder_39 (L2), Winky_39 (L2), Zakai_39 (L2), ZhongYanYuan_38 (L2),

Start 7:

- Found in 20 of 73 (27.4%) of genes in pham
- Manual Annotations of this start: 19 of 52
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Acquire49_37 (L1), Appletree2_36 (L1), AvadaKedavra_37 (L1), Calm_37 (L1), CicholasNage_37 (L1), DirkDirk_36 (L1), Enceladus_36 (L1), Halena_36 (L1), JoeDirt_36 (L1), LeBron_37 (L1), MAckerman_37 (L1), OhShagHennessy_36 (L1), Rose5_36 (L1), Silverleaf_36 (L1), Tyson_36 (L1), UPIE_37 (L1), Wamburgxpress_37 (L1), Wyatt2_37 (L1), Zaria_37 (L1),

Start 9:

- Found in 19 of 73 (26.0%) of genes in pham
- No Manual Annotations of this start.
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Poochiewood_36 (L1),

Start 16:

- Found in 11 of 73 (15.1%) of genes in pham
- No Manual Annotations of this start.
- Called 27.3% of time when present
- Phage (with cluster) where this start called: ChutneyChips_36 (L4), FarmResident_36 (L4), Sheng711_36 (L4),

Start 25:

- Found in 39 of 73 (53.4%) of genes in pham
- No Manual Annotations of this start.
- Called 2.6% of time when present
- Phage (with cluster) where this start called: Rossetti_39 (L2),

Start 27:

- Found in 1 of 73 (1.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KirDoubleO7_35 (L3),

Summary by clusters:

There are 4 clusters represented in this pham: L4, L2, L3, L1,

Info for manual annotations of cluster L1:

- Start number 7 was manually annotated 19 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 6 was manually annotated 29 times for cluster L2.

Info for manual annotations of cluster L4:

- Start number 6 was manually annotated 4 times for cluster L4.

Gene Information:

Gene: Acquire49_37 Start: 32374, Stop: 31592, Start Num: 7

Candidate Starts for Acquire49_37:

(Start: 7 @32374 has 19 MA's), (9, 32356), (35, 32089), (37, 32062), (38, 32059), (40, 32029), (41, 32017), (45, 31996), (52, 31948), (62, 31855), (68, 31819), (77, 31729), (81, 31675),

Gene: Appletree2_36 Start: 32316, Stop: 31534, Start Num: 7

Candidate Starts for Appletree2_36:

(Start: 7 @32316 has 19 MA's), (9, 32298), (35, 32031), (37, 32004), (38, 32001), (40, 31971), (41, 31959), (45, 31938), (52, 31890), (62, 31797), (68, 31761), (77, 31671), (81, 31617),

Gene: Archie_39 Start: 33946, Stop: 33167, Start Num: 6

Candidate Starts for Archie_39:

(Start: 6 @33946 has 33 MA's), (10, 33889), (21, 33778), (25, 33751), (32, 33679), (33, 33673), (37, 33631), (43, 33574), (44, 33568), (77, 33307), (78, 33298), (81, 33253),

Gene: AvadaKedavra_37 Start: 32383, Stop: 31601, Start Num: 7

Candidate Starts for AvadaKedavra_37:

(Start: 7 @32383 has 19 MA's), (9, 32365), (35, 32098), (37, 32071), (38, 32068), (40, 32038), (41, 32026), (45, 32005), (52, 31957), (62, 31864), (68, 31828), (77, 31738), (81, 31684),

Gene: Baoshan_38 Start: 33577, Stop: 32798, Start Num: 6

Candidate Starts for Baoshan_38:

(Start: 6 @33577 has 33 MA's), (10, 33520), (19, 33421), (23, 33400), (25, 33382), (32, 33310), (33, 33304), (37, 33262), (42, 33211), (44, 33199), (46, 33193), (47, 33184), (60, 33088), (75, 32956), (81, 32884),

Gene: Bazzle_39 Start: 33979, Stop: 33200, Start Num: 6

Candidate Starts for Bazzle_39:

(Start: 6 @33979 has 33 MA's), (10, 33922), (25, 33784), (29, 33736), (32, 33712), (33, 33706), (37, 33664), (44, 33601), (67, 33424), (77, 33340), (78, 33331), (81, 33286),

Gene: BigCheese_39 Start: 33739, Stop: 32960, Start Num: 6

Candidate Starts for BigCheese_39:

(Start: 6 @33739 has 33 MA's), (10, 33682), (17, 33610), (19, 33583), (25, 33544), (32, 33472), (33, 33466), (37, 33424), (59, 33256), (67, 33184), (78, 33091), (79, 33085), (81, 33046),

Gene: BobsGarage_39 Start: 33739, Stop: 32960, Start Num: 6

Candidate Starts for BobsGarage_39:

(Start: 6 @33739 has 33 MA's), (10, 33682), (17, 33610), (19, 33583), (25, 33544), (32, 33472), (33, 33466), (37, 33424), (59, 33256), (67, 33184), (78, 33091), (79, 33085), (81, 33046),

Gene: BrainDrainer_37 Start: 32627, Stop: 31839, Start Num: 6

Candidate Starts for BrainDrainer_37:

(Start: 6 @32627 has 33 MA's), (10, 32570), (13, 32561), (16, 32510), (19, 32471), (22, 32453), (31, 32375), (32, 32360), (33, 32354), (37, 32312), (48, 32231), (53, 32189), (57, 32171), (65, 32087), (68, 32066), (77, 31976), (80, 31934), (81, 31922),

Gene: Breezona_39 Start: 33739, Stop: 32960, Start Num: 6

Candidate Starts for Breezona_39:

(Start: 6 @33739 has 33 MA's), (10, 33682), (17, 33610), (19, 33583), (25, 33544), (32, 33472), (33, 33466), (37, 33424), (59, 33256), (67, 33184), (78, 33091), (79, 33085), (81, 33046),

Gene: Bromden_38 Start: 33174, Stop: 32386, Start Num: 6

Candidate Starts for Bromden_38:

(Start: 6 @33174 has 33 MA's), (10, 33117), (11, 33114), (19, 33018), (23, 32997), (24, 32985), (31, 32922), (32, 32907), (33, 32901), (37, 32859), (46, 32790), (51, 32745), (58, 32700), (62, 32649), (64, 32640), (65, 32634), (71, 32586), (73, 32574), (77, 32523), (80, 32481),

Gene: Calm_37 Start: 32389, Stop: 31607, Start Num: 7

Candidate Starts for Calm_37:

(Start: 7 @32389 has 19 MA's), (9, 32371), (35, 32104), (37, 32077), (38, 32074), (40, 32044), (41, 32032), (45, 32011), (52, 31963), (62, 31870), (68, 31834), (77, 31744), (81, 31690),

Gene: Chaser_36 Start: 32444, Stop: 31656, Start Num: 6

Candidate Starts for Chaser_36:

(Start: 6 @32444 has 33 MA's), (10, 32387), (13, 32378), (16, 32327), (19, 32288), (22, 32270), (31, 32192), (32, 32177), (33, 32171), (37, 32129), (48, 32048), (53, 32006), (57, 31988), (61, 31922), (65, 31904), (68, 31883), (77, 31793), (80, 31751), (81, 31739),

Gene: ChutneyChips_36 Start: 32507, Stop: 31836, Start Num: 16

Candidate Starts for ChutneyChips_36:

(Start: 6 @32624 has 33 MA's), (10, 32567), (14, 32531), (16, 32507), (19, 32468), (22, 32450), (30, 32375), (31, 32372), (32, 32357), (33, 32351), (36, 32321), (37, 32309), (50, 32198), (53, 32186), (57, 32168), (62, 32099), (64, 32090), (65, 32084), (66, 32081), (71, 32036), (77, 31973), (80, 31931), (81, 31919),

Gene: CicholasNage_37 Start: 32410, Stop: 31628, Start Num: 7

Candidate Starts for CicholasNage_37:

(Start: 7 @32410 has 19 MA's), (9, 32392), (35, 32125), (37, 32098), (38, 32095), (40, 32065), (41, 32053), (45, 32032), (52, 31984), (62, 31891), (68, 31855), (77, 31765), (81, 31711),

Gene: Claus_39 Start: 33735, Stop: 32956, Start Num: 6

Candidate Starts for Claus_39:

(Start: 6 @33735 has 33 MA's), (10, 33678), (19, 33579), (23, 33558), (25, 33540), (32, 33468), (33, 33462), (37, 33420), (42, 33369), (44, 33357), (46, 33351), (47, 33342), (59, 33252), (60, 33246), (75, 33114),

Gene: Crossroads_39 Start: 33740, Stop: 32961, Start Num: 6

Candidate Starts for Crossroads_39:

(Start: 6 @33740 has 33 MA's), (10, 33683), (17, 33611), (25, 33545), (26, 33530), (32, 33473), (33, 33467), (37, 33425), (67, 33185), (78, 33092), (79, 33086), (81, 33047),

Gene: DHan_40 Start: 33676, Stop: 32897, Start Num: 6

Candidate Starts for DHan_40:

(Start: 6 @33676 has 33 MA's), (10, 33619), (19, 33520), (23, 33499), (25, 33481), (32, 33409), (33, 33403), (37, 33361), (42, 33310), (44, 33298), (46, 33292), (47, 33283), (59, 33193), (60, 33187), (75, 33055),

Gene: DanBing_39 Start: 33568, Stop: 32789, Start Num: 6

Candidate Starts for DanBing_39:

(Start: 6 @33568 has 33 MA's), (10, 33511), (19, 33412), (23, 33391), (25, 33373), (32, 33301), (33, 33295), (37, 33253), (42, 33202), (44, 33190), (46, 33184), (47, 33175), (60, 33079), (75, 32947),

Gene: DirkDirk_36 Start: 32376, Stop: 31594, Start Num: 7

Candidate Starts for DirkDirk_36:

(Start: 7 @32376 has 19 MA's), (9, 32358), (35, 32091), (37, 32064), (38, 32061), (40, 32031), (41, 32019), (45, 31998), (52, 31950), (62, 31857), (68, 31821), (77, 31731), (81, 31677),

Gene: Douge_36 Start: 32382, Stop: 31594, Start Num: 6

Candidate Starts for Douge_36:

(Start: 6 @32382 has 33 MA's), (10, 32325), (13, 32316), (16, 32265), (19, 32226), (22, 32208), (31, 32130), (32, 32115), (33, 32109), (37, 32067), (48, 31986), (53, 31944), (57, 31926), (65, 31842), (68, 31821), (77, 31731), (80, 31689), (81, 31677),

Gene: Douzhi_36 Start: 32488, Stop: 31700, Start Num: 6

Candidate Starts for Douzhi_36:

(Start: 6 @32488 has 33 MA's), (10, 32431), (13, 32422), (16, 32371), (19, 32332), (22, 32314), (31, 32236), (32, 32221), (33, 32215), (37, 32173), (48, 32092), (53, 32050), (57, 32032), (65, 31948), (68, 31927), (70, 31903), (77, 31837), (80, 31795), (81, 31783),

Gene: DrSeegs_39 Start: 33739, Stop: 32960, Start Num: 6

Candidate Starts for DrSeegs_39:

(Start: 6 @33739 has 33 MA's), (10, 33682), (17, 33610), (19, 33583), (25, 33544), (32, 33472), (33, 33466), (37, 33424), (59, 33256), (67, 33184), (78, 33091), (79, 33085), (81, 33046),

Gene: DyoEdafos_38 Start: 32716, Stop: 31928, Start Num: 6

Candidate Starts for DyoEdafos_38:

(Start: 6 @32716 has 33 MA's), (10, 32659), (16, 32599), (19, 32560), (22, 32542), (31, 32464), (32, 32449), (33, 32443), (37, 32401), (48, 32320), (50, 32290), (53, 32278), (57, 32260), (64, 32182), (65, 32176), (77, 32065), (80, 32023), (81, 32011),

Gene: Enceladus_36 Start: 32359, Stop: 31577, Start Num: 7

Candidate Starts for Enceladus_36:

(Start: 7 @32359 has 19 MA's), (9, 32341), (35, 32074), (37, 32047), (38, 32044), (40, 32014), (41, 32002), (45, 31981), (52, 31933), (62, 31840), (68, 31804), (77, 31714), (81, 31660),

Gene: Faith1_39 Start: 33739, Stop: 32960, Start Num: 6

Candidate Starts for Faith1_39:

(Start: 6 @33739 has 33 MA's), (10, 33682), (17, 33610), (19, 33583), (25, 33544), (32, 33472), (33, 33466), (37, 33424), (59, 33256), (67, 33184), (78, 33091), (79, 33085), (81, 33046),

Gene: FarmResident_36 Start: 32309, Stop: 31638, Start Num: 16

Candidate Starts for FarmResident_36:

(Start: 6 @32426 has 33 MA's), (10, 32369), (13, 32360), (16, 32309), (19, 32270), (22, 32252), (31, 32174), (32, 32159), (33, 32153), (37, 32111), (48, 32030), (53, 31988), (57, 31970), (65, 31886), (68, 31865), (77, 31775), (80, 31733), (81, 31721),

Gene: Finemlucis_39 Start: 34015, Stop: 33236, Start Num: 6

Candidate Starts for Finemlucis_39:

(Start: 6 @34015 has 33 MA's), (10, 33958), (17, 33886), (19, 33859), (25, 33820), (32, 33748), (33, 33742), (37, 33700), (67, 33460), (78, 33367), (79, 33361), (81, 33322),

Gene: Gabriela_39 Start: 34001, Stop: 33222, Start Num: 6

Candidate Starts for Gabriela_39:

(Start: 6 @34001 has 33 MA's), (10, 33944), (17, 33872), (19, 33845), (25, 33806), (32, 33734), (33, 33728), (37, 33686), (59, 33518), (67, 33446), (78, 33353), (79, 33347), (81, 33308),

Gene: Gardann_39 Start: 33740, Stop: 32961, Start Num: 6

Candidate Starts for Gardann_39:

(Start: 6 @33740 has 33 MA's), (10, 33683), (17, 33611), (25, 33545), (32, 33473), (33, 33467), (37, 33425), (67, 33185), (78, 33092), (79, 33086), (81, 33047),

Gene: GuuelaD_39 Start: 33777, Stop: 32998, Start Num: 6

Candidate Starts for GuuelaD_39:

(Start: 6 @33777 has 33 MA's), (10, 33720), (17, 33648), (25, 33582), (26, 33567), (32, 33510), (33, 33504), (37, 33462), (67, 33222), (78, 33129), (79, 33123), (81, 33084),

Gene: Hafay_39 Start: 33772, Stop: 32993, Start Num: 6

Candidate Starts for Hafay_39:

(Start: 6 @33772 has 33 MA's), (10, 33715), (17, 33643), (25, 33577), (26, 33562), (32, 33505), (33, 33499), (37, 33457), (67, 33217), (78, 33124), (79, 33118), (81, 33079),

Gene: Halena_36 Start: 32385, Stop: 31603, Start Num: 7

Candidate Starts for Halena_36:

(Start: 7 @32385 has 19 MA's), (9, 32367), (35, 32100), (37, 32073), (38, 32070), (40, 32040), (41, 32028), (45, 32007), (52, 31959), (62, 31866), (68, 31830), (77, 31740), (81, 31686),

Gene: JoeDirt_36 Start: 32357, Stop: 31575, Start Num: 7

Candidate Starts for JoeDirt_36:

(Start: 7 @32357 has 19 MA's), (9, 32339), (35, 32072), (37, 32045), (38, 32042), (40, 32012), (41, 32000), (45, 31979), (52, 31931), (62, 31838), (68, 31802), (77, 31712), (81, 31658),

Gene: Kahlid_39 Start: 33744, Stop: 32965, Start Num: 6

Candidate Starts for Kahlid_39:

(Start: 6 @33744 has 33 MA's), (10, 33687), (17, 33615), (25, 33549), (26, 33534), (32, 33477), (33, 33471), (37, 33429), (67, 33189), (78, 33096), (79, 33090), (81, 33051),

Gene: KirDoubleO7_35 Start: 33790, Stop: 33206, Start Num: 27

Candidate Starts for KirDoubleO7_35:

(4, 34060), (5, 34015), (8, 33991), (12, 33937), (18, 33853), (20, 33841), (22, 33829), (27, 33790), (28, 33781), (33, 33730), (34, 33724), (47, 33613), (54, 33565), (63, 33478), (69, 33421), (72, 33415), (80, 33307), (82, 33253),

Gene: Kropertea_36 Start: 32524, Stop: 31736, Start Num: 6

Candidate Starts for Kropertea_36:

(Start: 6 @32524 has 33 MA's), (10, 32467), (16, 32407), (19, 32368), (22, 32350), (31, 32272), (32, 32257), (33, 32251), (37, 32209), (48, 32128), (50, 32098), (53, 32086), (57, 32068), (64, 31990), (65, 31984), (77, 31873), (80, 31831), (81, 31819),

Gene: LeBron_37 Start: 32401, Stop: 31619, Start Num: 7

Candidate Starts for LeBron_37:

(Start: 7 @32401 has 19 MA's), (9, 32383), (35, 32116), (37, 32089), (38, 32086), (40, 32056), (41, 32044), (45, 32023), (52, 31975), (62, 31882), (68, 31846), (77, 31756), (81, 31702),

Gene: Lewan_39 Start: 33732, Stop: 32953, Start Num: 6

Candidate Starts for Lewan_39:

(Start: 6 @33732 has 33 MA's), (10, 33675), (12, 33669), (15, 33636), (21, 33564), (32, 33465), (33, 33459), (37, 33417), (44, 33354), (55, 33285), (69, 33153), (77, 33093), (78, 33084), (81, 33039),

Gene: LilDestine_39 Start: 33737, Stop: 32958, Start Num: 6

Candidate Starts for LilDestine_39:

(Start: 6 @33737 has 33 MA's), (10, 33680), (17, 33608), (25, 33542), (32, 33470), (33, 33464), (37, 33422), (67, 33182), (78, 33089), (79, 33083),

Gene: Loadrie_39 Start: 33770, Stop: 32991, Start Num: 6

Candidate Starts for Loadrie_39:

(Start: 6 @33770 has 33 MA's), (10, 33713), (17, 33641), (25, 33575), (26, 33560), (32, 33503), (33, 33497), (37, 33455), (67, 33215), (78, 33122), (79, 33116), (81, 33077),

Gene: Lynnae_39 Start: 33727, Stop: 32948, Start Num: 6

Candidate Starts for Lynnae_39:

(Start: 6 @33727 has 33 MA's), (10, 33670), (17, 33598), (25, 33532), (26, 33517), (32, 33460), (33, 33454), (37, 33412), (67, 33172), (78, 33079), (79, 33073), (81, 33034),

Gene: MAckerman_37 Start: 32379, Stop: 31597, Start Num: 7

Candidate Starts for MAckerman_37:

(Start: 7 @32379 has 19 MA's), (35, 32094), (37, 32067), (38, 32064), (40, 32034), (41, 32022), (45, 32001), (52, 31953), (62, 31860), (68, 31824), (77, 31734), (81, 31680),

Gene: Miley16_39 Start: 33739, Stop: 32960, Start Num: 6

Candidate Starts for Miley16_39:

(Start: 6 @33739 has 33 MA's), (10, 33682), (17, 33610), (19, 33583), (25, 33544), (32, 33472), (33, 33466), (37, 33424), (59, 33256), (67, 33184), (78, 33091), (79, 33085), (81, 33046),

Gene: MkaliMitinis3_39 Start: 33739, Stop: 32960, Start Num: 6

Candidate Starts for MkaliMitinis3_39:

(1, 33889), (2, 33835), (3, 33820), (Start: 6 @33739 has 33 MA's), (10, 33682), (17, 33610), (25, 33544), (26, 33529), (32, 33472), (33, 33466), (37, 33424), (67, 33184), (78, 33091), (79, 33085), (81, 33046),

Gene: Netyap_39 Start: 33739, Stop: 32960, Start Num: 6

Candidate Starts for Netyap_39:

(Start: 6 @33739 has 33 MA's), (10, 33682), (17, 33610), (19, 33583), (25, 33544), (32, 33472), (33, 33466), (37, 33424), (59, 33256), (67, 33184), (78, 33091), (79, 33085), (81, 33046),

Gene: Nicholasp3_39 Start: 33740, Stop: 32961, Start Num: 6

Candidate Starts for Nicholasp3_39:

(Start: 6 @33740 has 33 MA's), (10, 33683), (17, 33611), (25, 33545), (32, 33473), (33, 33467), (37, 33425), (67, 33185), (78, 33092), (79, 33086), (81, 33047),

Gene: OhShagHennessy_36 Start: 32347, Stop: 31565, Start Num: 7

Candidate Starts for OhShagHennessy_36:

(Start: 7 @32347 has 19 MA's), (9, 32329), (35, 32062), (37, 32035), (38, 32032), (40, 32002), (41, 31990), (45, 31969), (62, 31828), (68, 31792), (77, 31702), (81, 31648),

Gene: OverPar_40 Start: 33770, Stop: 32991, Start Num: 6

Candidate Starts for OverPar_40:

(Start: 6 @33770 has 33 MA's), (10, 33713), (17, 33641), (25, 33575), (26, 33560), (32, 33503), (33, 33497), (37, 33455), (67, 33215), (78, 33122), (79, 33116), (81, 33077),

Gene: PYPDinur_36 Start: 32488, Stop: 31700, Start Num: 6

Candidate Starts for PYPDinur_36:

(Start: 6 @32488 has 33 MA's), (10, 32431), (13, 32422), (16, 32371), (19, 32332), (22, 32314), (31, 32236), (32, 32221), (33, 32215), (37, 32173), (48, 32092), (53, 32050), (57, 32032), (65, 31948), (68, 31927), (77, 31837), (80, 31795), (81, 31783),

Gene: Poochiewood_36 Start: 32357, Stop: 31593, Start Num: 9

Candidate Starts for Poochiewood_36:

(Start: 7 @32375 has 19 MA's), (9, 32357), (35, 32090), (37, 32063), (38, 32060), (40, 32030), (41, 32018), (45, 31997), (52, 31949), (62, 31856), (68, 31820), (77, 31730), (81, 31676),

Gene: Quby_36 Start: 32381, Stop: 31593, Start Num: 6

Candidate Starts for Quby_36:

(Start: 6 @32381 has 33 MA's), (10, 32324), (16, 32264), (19, 32225), (22, 32207), (31, 32129), (32, 32114), (33, 32108), (37, 32066), (46, 31997), (48, 31985), (53, 31943), (57, 31925), (65, 31841), (68, 31820), (77, 31730), (80, 31688), (81, 31676),

Gene: Rose5_36 Start: 32374, Stop: 31592, Start Num: 7

Candidate Starts for Rose5_36:

(Start: 7 @32374 has 19 MA's), (9, 32356), (35, 32089), (37, 32062), (38, 32059), (40, 32029), (41, 32017), (45, 31996), (52, 31948), (62, 31855), (68, 31819), (77, 31729), (81, 31675),

Gene: Rossetti_39 Start: 33812, Stop: 33228, Start Num: 25

Candidate Starts for Rossetti_39:

(Start: 6 @34007 has 33 MA's), (10, 33950), (25, 33812), (32, 33740), (33, 33734), (37, 33692), (39, 33665), (49, 33599), (59, 33524), (69, 33428), (75, 33386), (77, 33368), (78, 33359), (81, 33314),

Gene: Rumpelstiltskin_39 Start: 34006, Stop: 33227, Start Num: 6

Candidate Starts for Rumpelstiltskin_39:

(Start: 6 @34006 has 33 MA's), (10, 33949), (17, 33877), (25, 33811), (32, 33739), (33, 33733), (37, 33691), (67, 33451), (78, 33358), (79, 33352), (81, 33313),

Gene: Sarshaun_39 Start: 33772, Stop: 32993, Start Num: 6

Candidate Starts for Sarshaun_39:

(Start: 6 @33772 has 33 MA's), (10, 33715), (17, 33643), (25, 33577), (26, 33562), (32, 33505), (33, 33499), (37, 33457), (67, 33217), (78, 33124), (79, 33118), (81, 33079),

Gene: Sheng711_36 Start: 32371, Stop: 31700, Start Num: 16

Candidate Starts for Sheng711_36:

(Start: 6 @32488 has 33 MA's), (10, 32431), (13, 32422), (16, 32371), (19, 32332), (22, 32314), (31, 32236), (32, 32221), (33, 32215), (37, 32173), (48, 32092), (53, 32050), (57, 32032), (65, 31948), (68, 31927), (77, 31837), (80, 31795), (81, 31783),

Gene: Silverleaf_36 Start: 32374, Stop: 31592, Start Num: 7

Candidate Starts for Silverleaf_36:

(Start: 7 @32374 has 19 MA's), (9, 32356), (35, 32089), (37, 32062), (38, 32059), (40, 32029), (41, 32017), (45, 31996), (52, 31948), (62, 31855), (68, 31819), (77, 31729), (81, 31675),

Gene: SoJulia_40 Start: 33999, Stop: 33220, Start Num: 6

Candidate Starts for SoJulia_40:

(Start: 6 @33999 has 33 MA's), (10, 33942), (17, 33870), (19, 33843), (25, 33804), (32, 33732), (33, 33726), (37, 33684), (59, 33516), (67, 33444), (78, 33351), (79, 33345), (81, 33306),

Gene: Soap141_39 Start: 33772, Stop: 32993, Start Num: 6

Candidate Starts for Soap141_39:

(Start: 6 @33772 has 33 MA's), (10, 33715), (17, 33643), (25, 33577), (26, 33562), (32, 33505), (33, 33499), (37, 33457), (67, 33217), (78, 33124), (79, 33118), (81, 33079),

Gene: Tourach_39 Start: 33734, Stop: 32955, Start Num: 6

Candidate Starts for Tourach_39:

(Start: 6 @33734 has 33 MA's), (10, 33677), (19, 33578), (25, 33539), (32, 33467), (33, 33461), (37, 33419), (44, 33356), (56, 33284), (59, 33251), (78, 33086), (81, 33041),

Gene: Tyson_36 Start: 32375, Stop: 31593, Start Num: 7

Candidate Starts for Tyson_36:

(Start: 7 @32375 has 19 MA's), (9, 32357), (35, 32090), (37, 32063), (38, 32060), (40, 32030), (41, 32018), (45, 31997), (52, 31949), (62, 31856), (68, 31820), (77, 31730), (81, 31676),

Gene: UPIE_37 Start: 32373, Stop: 31591, Start Num: 7

Candidate Starts for UPIE_37:

(Start: 7 @32373 has 19 MA's), (9, 32355), (35, 32088), (37, 32061), (38, 32058), (40, 32028), (41, 32016), (45, 31995), (52, 31947), (62, 31854), (68, 31818), (77, 31728), (81, 31674),

Gene: Underpass_39 Start: 33740, Stop: 32961, Start Num: 6

Candidate Starts for Underpass_39:

(Start: 6 @33740 has 33 MA's), (10, 33683), (17, 33611), (25, 33545), (32, 33473), (33, 33467), (37, 33425), (67, 33185), (78, 33092), (79, 33086), (81, 33047),

Gene: Vetrix_39 Start: 33745, Stop: 32966, Start Num: 6

Candidate Starts for Vetrix_39:

(Start: 6 @33745 has 33 MA's), (10, 33688), (17, 33616), (19, 33589), (25, 33550), (32, 33478), (33, 33472), (37, 33430), (67, 33190), (76, 33118), (78, 33097), (79, 33091), (81, 33052),

Gene: Wamburgexpress_37 Start: 32388, Stop: 31606, Start Num: 7

Candidate Starts for Wamburgexpress_37:

(Start: 7 @32388 has 19 MA's), (9, 32370), (35, 32103), (37, 32076), (38, 32073), (40, 32043), (41, 32031), (45, 32010), (52, 31962), (62, 31869), (68, 31833), (77, 31743), (81, 31689),

Gene: Wigglewobble_39 Start: 33771, Stop: 32992, Start Num: 6

Candidate Starts for Wigglewobble_39:

(Start: 6 @33771 has 33 MA's), (10, 33714), (17, 33642), (25, 33576), (26, 33561), (32, 33504), (33, 33498), (37, 33456), (67, 33216), (78, 33123), (79, 33117), (81, 33078),

Gene: Wilder_39 Start: 33744, Stop: 32965, Start Num: 6

Candidate Starts for Wilder_39:

(Start: 6 @33744 has 33 MA's), (10, 33687), (17, 33615), (25, 33549), (26, 33534), (32, 33477), (33, 33471), (37, 33429), (67, 33189), (78, 33096), (79, 33090), (81, 33051),

Gene: Winky_39 Start: 33739, Stop: 32960, Start Num: 6

Candidate Starts for Winky_39:

(Start: 6 @33739 has 33 MA's), (10, 33682), (17, 33610), (19, 33583), (25, 33544), (32, 33472), (33, 33466), (37, 33424), (59, 33256), (67, 33184), (78, 33091), (79, 33085), (81, 33046),

Gene: Wyatt2_37 Start: 32374, Stop: 31592, Start Num: 7

Candidate Starts for Wyatt2_37:

(Start: 7 @32374 has 19 MA's), (9, 32356), (35, 32089), (37, 32062), (38, 32059), (40, 32029), (41, 32017), (45, 31996), (52, 31948), (62, 31855), (68, 31819), (77, 31729), (81, 31675),

Gene: Zakai_39 Start: 33996, Stop: 33217, Start Num: 6

Candidate Starts for Zakai_39:

(Start: 6 @33996 has 33 MA's), (10, 33939), (17, 33867), (25, 33801), (26, 33786), (32, 33729), (33, 33723), (37, 33681), (67, 33441), (78, 33348), (79, 33342), (81, 33303),

Gene: Zaria_37 Start: 32389, Stop: 31607, Start Num: 7

Candidate Starts for Zaria_37:

(Start: 7 @32389 has 19 MA's), (9, 32371), (35, 32104), (37, 32077), (38, 32074), (40, 32044), (41, 32032), (45, 32011), (52, 31963), (62, 31870), (68, 31834), (77, 31744), (81, 31690),

Gene: ZhongYanYuan_38 Start: 33577, Stop: 32798, Start Num: 6

Candidate Starts for ZhongYanYuan_38:

(Start: 6 @33577 has 33 MA's), (10, 33520), (19, 33421), (23, 33400), (25, 33382), (32, 33310), (33, 33304), (37, 33262), (42, 33211), (44, 33199), (46, 33193), (47, 33184), (60, 33088), (74, 32965), (75, 32956),