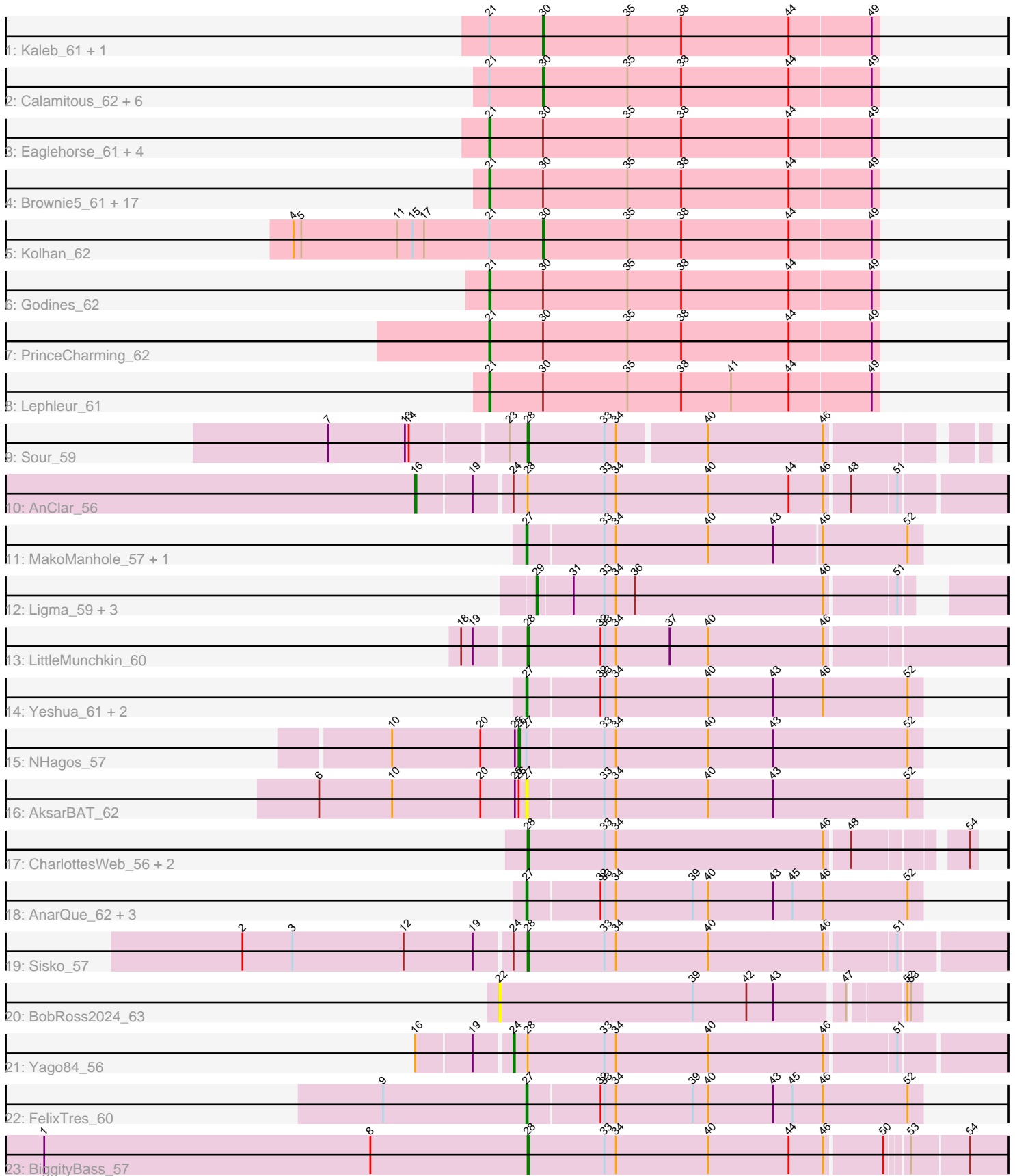


Pham 311606



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 311606 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311606 has 62 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Kaleb_61, Allegro_61
- Track 2 : Calamitous_62, Lars_62, MasterPo_62, Faze9_60, Tres_61, Coffee_61, LilSmirk_61
- Track 3 : Eaglehorse_61, FrenchFry_62, Kheth_61, ItsyBitsy1_61, Glass_62
- Track 4 : Brownie5_61, Qyrzula_56, Ares_61, TA17A_63, Boyle_61, West99_61, Arbiter_60, LizLemon_61, Sabella_61, Rhinoforte_61, Bananafish_62, Laurie_61, Blocker23_61, Phantasmagoria_61, Opia_62, Rosebush_60, Tinciduntolum_62, Hedgerow_61
- Track 5 : Kolhan_62
- Track 6 : Godines_62
- Track 7 : PrinceCharming_62
- Track 8 : Lephleur_61
- Track 9 : Sour_59
- Track 10 : AnClar_56
- Track 11 : MakoManhole_57, CaiB_60
- Track 12 : Ligma_59, Fresco_59, Axumite_59, Shatter_59
- Track 13 : LittleMunchkin_60
- Track 14 : Yeshua_61, Wooper_61, TraderJ_61
- Track 15 : NHagos_57
- Track 16 : AksarBAT_62
- Track 17 : CharlottesWeb_56, Mariokart_56, JellyBelly_55
- Track 18 : AnarQue_62, CloverMinnie_60, Blackpen_60, MossRose_61
- Track 19 : Sisko_57
- Track 20 : BobRoss2024_63
- Track 21 : Yago84_56
- Track 22 : FelixTres_60
- Track 23 : BiggityBass_57

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

The start number called the most often in the published annotations is 21, it was called in 26 of the 55 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arbiter_60, Ares_61, Bananafish_62, Blocker23_61, Boyle_61, Brownie5_61, Eaglehorse_61, FrenchFry_62, Glass_62, Godines_62, Hedgerow_61, ItsyBitsy1_61, Kheth_61, Laurie_61, Lephleur_61, LizLemon_61, Opia_62, Phantasmagoria_61, PrinceCharming_62, Qyrzula_56, Rhinoforte_61, Rosebush_60, Sabella_61, TA17A_63, Tinciduntolum_62, West99_61,

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

- Allegro_61, Calamitous_62, Coffee_61, Faze9_60, Kaleb_61, Kolhan_62, Lars_62, LilSmirk_61, MasterPo_62, Tres_61,

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

- AksarBAT_62, AnClar_56, AnarQue_62, Axumite_59, BiggityBass_57, Blackpen_60, BobRoss2024_63, CaiB_60, CharlottesWeb_56, CloverMinnie_60, FelixTres_60, Fresco_59, JellyBelly_55, Ligma_59, LittleMunchkin_60, MakoManhole_57, Mariokart_56, MossRose_61, NHagos_57, Shatter_59, Sisko_57, Sour_59, TraderJ_61, Wooper_61, Yago84_56, Yeshua_61,

Summary by start number:

Start 16:

- Found in 2 of 62 (3.2%) of genes in pham
- Manual Annotations of this start: 1 of 55
- Called 50.0% of time when present
- Phage (with cluster) where this start called: AnClar_56 (DR),

Start 21:

- Found in 36 of 62 (58.1%) of genes in pham
- Manual Annotations of this start: 26 of 55
- Called 72.2% of time when present
- Phage (with cluster) where this start called: Arbiter_60 (B2), Ares_61 (B2), Bananafish_62 (B2), Blocker23_61 (B2), Boyle_61 (B2), Brownie5_61 (B2), Eaglehorse_61 (B2), FrenchFry_62 (B2), Glass_62 (B2), Godines_62 (B2), Hedgerow_61 (B2), ItsyBitsy1_61 (B2), Kheth_61 (B2), Laurie_61 (B2), Lephleur_61 (B2), LizLemon_61 (B2), Opia_62 (B2), Phantasmagoria_61 (B2), PrinceCharming_62 (B2), Qyrzula_56 (B2), Rhinoforte_61 (B2), Rosebush_60 (B2), Sabella_61 (B2), TA17A_63 (B2), Tinciduntolum_62 (B2), West99_61 (B2),

Start 22:

- Found in 1 of 62 (1.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BobRoss2024_63 (DR),

Start 24:

- Found in 3 of 62 (4.8%) of genes in pham
- Manual Annotations of this start: 1 of 55
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Yago84_56 (DR),

Start 26:

- Found in 2 of 62 (3.2%) of genes in pham
- Manual Annotations of this start: 1 of 55
- Called 50.0% of time when present

- Phage (with cluster) where this start called: NHagos_57 (DR),

Start 27:

- Found in 12 of 62 (19.4%) of genes in pham
- Manual Annotations of this start: 8 of 55
- Called 91.7% of time when present
- Phage (with cluster) where this start called: AksarBAT_62 (DR), AnarQue_62 (DR), Blackpen_60 (DR), CaiB_60 (DR), CloverMinnie_60 (DR), FelixTres_60 (DR), MakoManhole_57 (DR), MossRose_61 (DR), TraderJ_61 (DR), Wooper_61 (DR), Yeshua_61 (DR),

Start 28:

- Found in 9 of 62 (14.5%) of genes in pham
- Manual Annotations of this start: 5 of 55
- Called 77.8% of time when present
- Phage (with cluster) where this start called: BiggityBass_57 (DR), CharlottesWeb_56 (DR), JellyBelly_55 (DR), LittleMunchkin_60 (DR), Mariokart_56 (DR), Sisko_57 (DR), Sour_59 (DR),

Start 29:

- Found in 4 of 62 (6.5%) of genes in pham
- Manual Annotations of this start: 4 of 55
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Axumite_59 (DR), Fresco_59 (DR), Ligma_59 (DR), Shatter_59 (DR),

Start 30:

- Found in 36 of 62 (58.1%) of genes in pham
- Manual Annotations of this start: 9 of 55
- Called 27.8% of time when present
- Phage (with cluster) where this start called: Allegro_61 (B2), Calamitous_62 (B2), Coffee_61 (B2), Faze9_60 (B2), Kaleb_61 (B2), Kolhan_62 (B2), Lars_62 (B2), LilSmirk_61 (B2), MasterPo_62 (B2), Tres_61 (B2),

Summary by clusters:

There are 2 clusters represented in this pham: DR, B2,

Info for manual annotations of cluster B2:

- Start number 21 was manually annotated 26 times for cluster B2.
- Start number 30 was manually annotated 9 times for cluster B2.

Info for manual annotations of cluster DR:

- Start number 16 was manually annotated 1 time for cluster DR.
- Start number 24 was manually annotated 1 time for cluster DR.
- Start number 26 was manually annotated 1 time for cluster DR.
- Start number 27 was manually annotated 8 times for cluster DR.
- Start number 28 was manually annotated 5 times for cluster DR.
- Start number 29 was manually annotated 4 times for cluster DR.

Gene Information:

Gene: AksarBAT_62 Start: 50750, Stop: 50445, Start Num: 27

Candidate Starts for AksarBAT_62:

(6, 50912), (10, 50855), (20, 50786), (25, 50759), (Start: 26 @50756 has 1 MA's), (Start: 27 @50750 has 8 MA's), (33, 50693), (34, 50684), (40, 50612), (43, 50561), (52, 50456),

Gene: Allegro_61 Start: 54331, Stop: 54071, Start Num: 30

Candidate Starts for Allegro_61:

(Start: 21 @54373 has 26 MA's), (Start: 30 @54331 has 9 MA's), (35, 54265), (38, 54223), (44, 54139), (49, 54076),

Gene: AnClar_56 Start: 50443, Stop: 50006, Start Num: 16

Candidate Starts for AnClar_56:

(Start: 16 @50443 has 1 MA's), (19, 50401), (Start: 24 @50374 has 1 MA's), (Start: 28 @50365 has 5 MA's), (33, 50305), (34, 50296), (40, 50224), (44, 50161), (46, 50134), (48, 50116), (51, 50083),

Gene: AnarQue_62 Start: 51188, Stop: 50883, Start Num: 27

Candidate Starts for AnarQue_62:

(Start: 27 @51188 has 8 MA's), (32, 51134), (33, 51131), (34, 51122), (39, 51062), (40, 51050), (43, 50999), (45, 50984), (46, 50960), (52, 50894),

Gene: Arbiter_60 Start: 54484, Stop: 54182, Start Num: 21

Candidate Starts for Arbiter_60:

(Start: 21 @54484 has 26 MA's), (Start: 30 @54442 has 9 MA's), (35, 54376), (38, 54334), (44, 54250), (49, 54187),

Gene: Ares_61 Start: 54453, Stop: 54151, Start Num: 21

Candidate Starts for Ares_61:

(Start: 21 @54453 has 26 MA's), (Start: 30 @54411 has 9 MA's), (35, 54345), (38, 54303), (44, 54219), (49, 54156),

Gene: Axumite_59 Start: 48999, Stop: 48667, Start Num: 29

Candidate Starts for Axumite_59:

(Start: 29 @48999 has 4 MA's), (31, 48972), (33, 48948), (34, 48939), (36, 48924), (46, 48777), (51, 48726),

Gene: Bananafish_62 Start: 54384, Stop: 54082, Start Num: 21

Candidate Starts for Bananafish_62:

(Start: 21 @54384 has 26 MA's), (Start: 30 @54342 has 9 MA's), (35, 54276), (38, 54234), (44, 54150), (49, 54087),

Gene: BiggityBass_57 Start: 50638, Stop: 50279, Start Num: 28

Candidate Starts for BiggityBass_57:

(1, 51016), (8, 50761), (Start: 28 @50638 has 5 MA's), (33, 50578), (34, 50569), (40, 50497), (44, 50434), (46, 50407), (50, 50365), (53, 50350), (54, 50308),

Gene: Blackpen_60 Start: 50072, Stop: 49767, Start Num: 27

Candidate Starts for Blackpen_60:

(Start: 27 @50072 has 8 MA's), (32, 50018), (33, 50015), (34, 50006), (39, 49946), (40, 49934), (43, 49883), (45, 49868), (46, 49844), (52, 49778),

Gene: Blocker23_61 Start: 54450, Stop: 54148, Start Num: 21

Candidate Starts for Blocker23_61:

(Start: 21 @54450 has 26 MA's), (Start: 30 @54408 has 9 MA's), (35, 54342), (38, 54300), (44, 54216), (49, 54153),

Gene: BobRoss2024_63 Start: 50581, Stop: 50267, Start Num: 22

Candidate Starts for BobRoss2024_63:

(22, 50581), (39, 50431), (42, 50389), (43, 50368), (47, 50317), (52, 50278), (53, 50275),

Gene: Boyle_61 Start: 54493, Stop: 54191, Start Num: 21

Candidate Starts for Boyle_61:

(Start: 21 @54493 has 26 MA's), (Start: 30 @54451 has 9 MA's), (35, 54385), (38, 54343), (44, 54259), (49, 54196),

Gene: Brownie5_61 Start: 54495, Stop: 54193, Start Num: 21

Candidate Starts for Brownie5_61:

(Start: 21 @54495 has 26 MA's), (Start: 30 @54453 has 9 MA's), (35, 54387), (38, 54345), (44, 54261), (49, 54198),

Gene: CaiB_60 Start: 50979, Stop: 50674, Start Num: 27

Candidate Starts for CaiB_60:

(Start: 27 @50979 has 8 MA's), (33, 50922), (34, 50913), (40, 50841), (43, 50790), (46, 50751), (52, 50685),

Gene: Calamitous_62 Start: 54341, Stop: 54081, Start Num: 30

Candidate Starts for Calamitous_62:

(Start: 21 @54383 has 26 MA's), (Start: 30 @54341 has 9 MA's), (35, 54275), (38, 54233), (44, 54149), (49, 54086),

Gene: CharlottesWeb_56 Start: 47807, Stop: 47478, Start Num: 28

Candidate Starts for CharlottesWeb_56:

(Start: 28 @47807 has 5 MA's), (33, 47747), (34, 47738), (46, 47576), (48, 47558), (54, 47483),

Gene: CloverMinnie_60 Start: 50580, Stop: 50275, Start Num: 27

Candidate Starts for CloverMinnie_60:

(Start: 27 @50580 has 8 MA's), (32, 50526), (33, 50523), (34, 50514), (39, 50454), (40, 50442), (43, 50391), (45, 50376), (46, 50352), (52, 50286),

Gene: Coffee_61 Start: 54445, Stop: 54185, Start Num: 30

Candidate Starts for Coffee_61:

(Start: 21 @54487 has 26 MA's), (Start: 30 @54445 has 9 MA's), (35, 54379), (38, 54337), (44, 54253), (49, 54190),

Gene: Eaglehorse_61 Start: 54371, Stop: 54069, Start Num: 21

Candidate Starts for Eaglehorse_61:

(Start: 21 @54371 has 26 MA's), (Start: 30 @54329 has 9 MA's), (35, 54263), (38, 54221), (44, 54137), (49, 54074),

Gene: Faze9_60 Start: 54468, Stop: 54208, Start Num: 30

Candidate Starts for Faze9_60:

(Start: 21 @54510 has 26 MA's), (Start: 30 @54468 has 9 MA's), (35, 54402), (38, 54360), (44, 54276), (49, 54213),

Gene: FelixTres_60 Start: 50603, Stop: 50298, Start Num: 27

Candidate Starts for FelixTres_60:

(9, 50714), (Start: 27 @50603 has 8 MA's), (32, 50549), (33, 50546), (34, 50537), (39, 50477), (40, 50465), (43, 50414), (45, 50399), (46, 50375), (52, 50309),

Gene: FrenchFry_62 Start: 54494, Stop: 54192, Start Num: 21

Candidate Starts for FrenchFry_62:

(Start: 21 @54494 has 26 MA's), (Start: 30 @54452 has 9 MA's), (35, 54386), (38, 54344), (44, 54260), (49, 54197),

Gene: Fresco_59 Start: 48999, Stop: 48667, Start Num: 29

Candidate Starts for Fresco_59:

(Start: 29 @48999 has 4 MA's), (31, 48972), (33, 48948), (34, 48939), (36, 48924), (46, 48777), (51, 48726),

Gene: Glass_62 Start: 54496, Stop: 54194, Start Num: 21

Candidate Starts for Glass_62:

(Start: 21 @54496 has 26 MA's), (Start: 30 @54454 has 9 MA's), (35, 54388), (38, 54346), (44, 54262), (49, 54199),

Gene: Godines_62 Start: 54753, Stop: 54451, Start Num: 21

Candidate Starts for Godines_62:

(Start: 21 @54753 has 26 MA's), (Start: 30 @54711 has 9 MA's), (35, 54645), (38, 54603), (44, 54519), (49, 54456),

Gene: Hedgerow_61 Start: 54470, Stop: 54168, Start Num: 21

Candidate Starts for Hedgerow_61:

(Start: 21 @54470 has 26 MA's), (Start: 30 @54428 has 9 MA's), (35, 54362), (38, 54320), (44, 54236), (49, 54173),

Gene: ItsyBitsy1_61 Start: 54584, Stop: 54282, Start Num: 21

Candidate Starts for ItsyBitsy1_61:

(Start: 21 @54584 has 26 MA's), (Start: 30 @54542 has 9 MA's), (35, 54476), (38, 54434), (44, 54350), (49, 54287),

Gene: JellyBelly_55 Start: 47805, Stop: 47476, Start Num: 28

Candidate Starts for JellyBelly_55:

(Start: 28 @47805 has 5 MA's), (33, 47745), (34, 47736), (46, 47574), (48, 47556), (54, 47481),

Gene: Kaleb_61 Start: 54461, Stop: 54201, Start Num: 30

Candidate Starts for Kaleb_61:

(Start: 21 @54503 has 26 MA's), (Start: 30 @54461 has 9 MA's), (35, 54395), (38, 54353), (44, 54269), (49, 54206),

Gene: Kheth_61 Start: 54415, Stop: 54113, Start Num: 21

Candidate Starts for Kheth_61:

(Start: 21 @54415 has 26 MA's), (Start: 30 @54373 has 9 MA's), (35, 54307), (38, 54265), (44, 54181), (49, 54118),

Gene: Kolhan_62 Start: 54340, Stop: 54080, Start Num: 30

Candidate Starts for Kolhan_62:

(4, 54535), (5, 54529), (11, 54454), (15, 54442), (17, 54433), (Start: 21 @54382 has 26 MA's), (Start: 30 @54340 has 9 MA's), (35, 54274), (38, 54232), (44, 54148), (49, 54085),

Gene: Lars_62 Start: 54438, Stop: 54178, Start Num: 30

Candidate Starts for Lars_62:

(Start: 21 @54480 has 26 MA's), (Start: 30 @54438 has 9 MA's), (35, 54372), (38, 54330), (44, 54246), (49, 54183),

Gene: Laurie_61 Start: 54177, Stop: 53875, Start Num: 21

Candidate Starts for Laurie_61:

(Start: 21 @54177 has 26 MA's), (Start: 30 @54135 has 9 MA's), (35, 54069), (38, 54027), (44, 53943), (49, 53880),

Gene: Lephleur_61 Start: 54344, Stop: 54042, Start Num: 21

Candidate Starts for Lephleur_61:

(Start: 21 @54344 has 26 MA's), (Start: 30 @54302 has 9 MA's), (35, 54236), (38, 54194), (41, 54155), (44, 54110), (49, 54047),

Gene: Ligma_59 Start: 48999, Stop: 48667, Start Num: 29

Candidate Starts for Ligma_59:

(Start: 29 @48999 has 4 MA's), (31, 48972), (33, 48948), (34, 48939), (36, 48924), (46, 48777), (51, 48726),

Gene: LilSmirk_61 Start: 54333, Stop: 54073, Start Num: 30

Candidate Starts for LilSmirk_61:

(Start: 21 @54375 has 26 MA's), (Start: 30 @54333 has 9 MA's), (35, 54267), (38, 54225), (44, 54141), (49, 54078),

Gene: LittleMunchkin_60 Start: 51846, Stop: 51481, Start Num: 28

Candidate Starts for LittleMunchkin_60:

(18, 51891), (19, 51882), (Start: 28 @51846 has 5 MA's), (32, 51789), (33, 51786), (34, 51777), (37, 51735), (40, 51705), (46, 51615),

Gene: LizLemon_61 Start: 54505, Stop: 54203, Start Num: 21

Candidate Starts for LizLemon_61:

(Start: 21 @54505 has 26 MA's), (Start: 30 @54463 has 9 MA's), (35, 54397), (38, 54355), (44, 54271), (49, 54208),

Gene: MakoManhole_57 Start: 49497, Stop: 49195, Start Num: 27

Candidate Starts for MakoManhole_57:

(Start: 27 @49497 has 8 MA's), (33, 49440), (34, 49431), (40, 49359), (43, 49308), (46, 49272), (52, 49206),

Gene: Mariokart_56 Start: 48093, Stop: 47764, Start Num: 28

Candidate Starts for Mariokart_56:

(Start: 28 @48093 has 5 MA's), (33, 48033), (34, 48024), (46, 47862), (48, 47844), (54, 47769),

Gene: MasterPo_62 Start: 54329, Stop: 54069, Start Num: 30

Candidate Starts for MasterPo_62:

(Start: 21 @54371 has 26 MA's), (Start: 30 @54329 has 9 MA's), (35, 54263), (38, 54221), (44, 54137), (49, 54074),

Gene: MossRose_61 Start: 50819, Stop: 50514, Start Num: 27

Candidate Starts for MossRose_61:

(Start: 27 @50819 has 8 MA's), (32, 50765), (33, 50762), (34, 50753), (39, 50693), (40, 50681), (43, 50630), (45, 50615), (46, 50591), (52, 50525),

Gene: NHagos_57 Start: 48610, Stop: 48299, Start Num: 26

Candidate Starts for NHagos_57:

(10, 48709), (20, 48640), (25, 48613), (Start: 26 @48610 has 1 MA's), (Start: 27 @48604 has 8 MA's), (33, 48547), (34, 48538), (40, 48466), (43, 48415), (52, 48310),

Gene: Opia_62 Start: 54395, Stop: 54093, Start Num: 21

Candidate Starts for Opia_62:

(Start: 21 @54395 has 26 MA's), (Start: 30 @54353 has 9 MA's), (35, 54287), (38, 54245), (44, 54161), (49, 54098),

Gene: Phantasmagoria_61 Start: 54385, Stop: 54083, Start Num: 21

Candidate Starts for Phantasmagoria_61:

(Start: 21 @54385 has 26 MA's), (Start: 30 @54343 has 9 MA's), (35, 54277), (38, 54235), (44, 54151), (49, 54088),

Gene: PrinceCharming_62 Start: 54427, Stop: 54125, Start Num: 21

Candidate Starts for PrinceCharming_62:

(Start: 21 @54427 has 26 MA's), (Start: 30 @54385 has 9 MA's), (35, 54319), (38, 54277), (44, 54193), (49, 54130),

Gene: Qyrzula_56 Start: 54506, Stop: 54204, Start Num: 21

Candidate Starts for Qyrzula_56:

(Start: 21 @54506 has 26 MA's), (Start: 30 @54464 has 9 MA's), (35, 54398), (38, 54356), (44, 54272), (49, 54209),

Gene: Rhinoforte_61 Start: 54428, Stop: 54126, Start Num: 21

Candidate Starts for Rhinoforte_61:

(Start: 21 @54428 has 26 MA's), (Start: 30 @54386 has 9 MA's), (35, 54320), (38, 54278), (44, 54194), (49, 54131),

Gene: Rosebush_60 Start: 54491, Stop: 54189, Start Num: 21

Candidate Starts for Rosebush_60:

(Start: 21 @54491 has 26 MA's), (Start: 30 @54449 has 9 MA's), (35, 54383), (38, 54341), (44, 54257), (49, 54194),

Gene: Sabella_61 Start: 54327, Stop: 54025, Start Num: 21

Candidate Starts for Sabella_61:

(Start: 21 @54327 has 26 MA's), (Start: 30 @54285 has 9 MA's), (35, 54219), (38, 54177), (44, 54093), (49, 54030),

Gene: Shatter_59 Start: 48999, Stop: 48667, Start Num: 29

Candidate Starts for Shatter_59:

(Start: 29 @48999 has 4 MA's), (31, 48972), (33, 48948), (34, 48939), (36, 48924), (46, 48777), (51, 48726),

Gene: Sisko_57 Start: 49215, Stop: 48856, Start Num: 28

Candidate Starts for Sisko_57:

(2, 49431), (3, 49392), (12, 49305), (19, 49251), (Start: 24 @49224 has 1 MA's), (Start: 28 @49215 has 5 MA's), (33, 49155), (34, 49146), (40, 49074), (46, 48984), (51, 48933),

Gene: Sour_59 Start: 51504, Stop: 51172, Start Num: 28

Candidate Starts for Sour_59:

(7, 51651), (13, 51591), (14, 51588), (23, 51516), (Start: 28 @51504 has 5 MA's), (33, 51444), (34, 51435), (40, 51369), (46, 51279),

Gene: TA17A_63 Start: 54331, Stop: 54029, Start Num: 21

Candidate Starts for TA17A_63:

(Start: 21 @54331 has 26 MA's), (Start: 30 @54289 has 9 MA's), (35, 54223), (38, 54181), (44, 54097), (49, 54034),

Gene: Tinciduntolum_62 Start: 54494, Stop: 54192, Start Num: 21

Candidate Starts for Tinciduntolum_62:

(Start: 21 @54494 has 26 MA's), (Start: 30 @54452 has 9 MA's), (35, 54386), (38, 54344), (44, 54260), (49, 54197),

Gene: TraderJ_61 Start: 50945, Stop: 50640, Start Num: 27

Candidate Starts for TraderJ_61:

(Start: 27 @50945 has 8 MA's), (32, 50891), (33, 50888), (34, 50879), (40, 50807), (43, 50756), (46, 50717), (52, 50651),

Gene: Tres_61 Start: 54306, Stop: 54046, Start Num: 30

Candidate Starts for Tres_61:

(Start: 21 @54348 has 26 MA's), (Start: 30 @54306 has 9 MA's), (35, 54240), (38, 54198), (44, 54114), (49, 54051),

Gene: West99_61 Start: 54521, Stop: 54219, Start Num: 21

Candidate Starts for West99_61:

(Start: 21 @54521 has 26 MA's), (Start: 30 @54479 has 9 MA's), (35, 54413), (38, 54371), (44, 54287), (49, 54224),

Gene: Wooper_61 Start: 50954, Stop: 50649, Start Num: 27

Candidate Starts for Wooper_61:

(Start: 27 @50954 has 8 MA's), (32, 50900), (33, 50897), (34, 50888), (40, 50816), (43, 50765), (46, 50726), (52, 50660),

Gene: Yago84_56 Start: 48921, Stop: 48553, Start Num: 24

Candidate Starts for Yago84_56:

(Start: 16 @48990 has 1 MA's), (19, 48948), (Start: 24 @48921 has 1 MA's), (Start: 28 @48912 has 5 MA's), (33, 48852), (34, 48843), (40, 48771), (46, 48681), (51, 48630),

Gene: Yeshua_61 Start: 50931, Stop: 50626, Start Num: 27

Candidate Starts for Yeshua_61:

(Start: 27 @50931 has 8 MA's), (32, 50877), (33, 50874), (34, 50865), (40, 50793), (43, 50742), (46, 50703), (52, 50637),