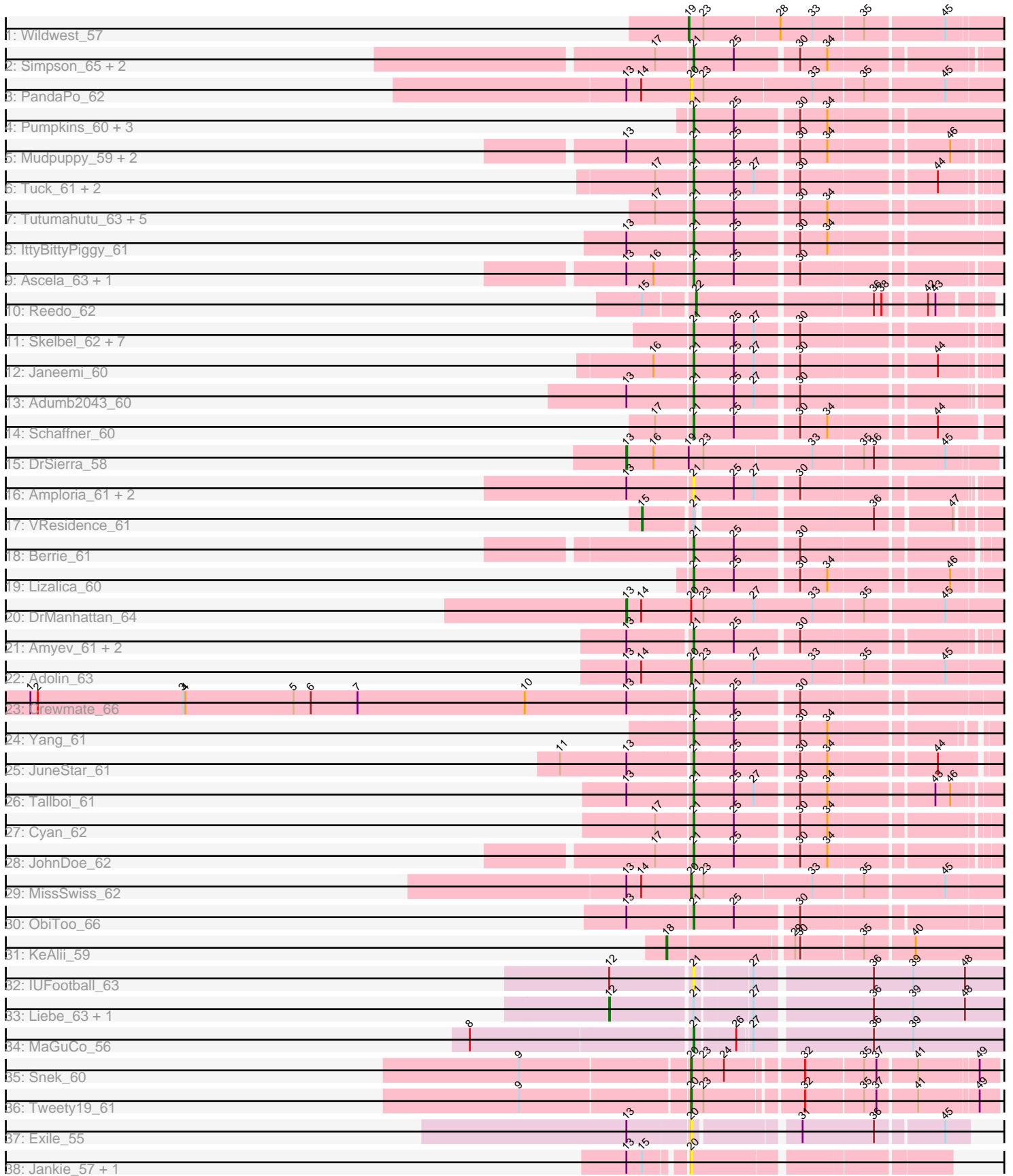


Pham 294720



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 294720 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294720 has 66 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Wildwest_57
- Track 2 : Simpson_65, Joemato_62, Flutur_61
- Track 3 : PandaPo_62
- Track 4 : Pumpkins_60, Cassia_61, TforTroy_62, Nitro_62
- Track 5 : Mudpuppy_59, Warda_62, Tbone_61
- Track 6 : Tuck_61, Phives_62, Community_61
- Track 7 : Tutumahutu_63, Powerpuff_63, YesChef_61, Lego_61, AGrandiflora_63, Kaylissa_63
- Track 8 : IttyBittyPiggy_61
- Track 9 : Ascela_63, Iter_62
- Track 10 : Reedo_62
- Track 11 : Skelbel_62, Eraser_61, London_61, Asa16_61, Niobe_61, Subaru_61, Jstan_62, Elezi_60
- Track 12 : Janeemi_60
- Track 13 : Adumb2043_60
- Track 14 : Schaffner_60
- Track 15 : DrSierra_58
- Track 16 : Amploria_61, AEgle_59, Turab_60
- Track 17 : VResidence_61
- Track 18 : Berrie_61
- Track 19 : Lizalica_60
- Track 20 : DrManhattan_64
- Track 21 : Amyev_61, Tian_60, Pixelle_61
- Track 22 : Adolin_63
- Track 23 : Crewmate_66
- Track 24 : Yang_61
- Track 25 : JuneStar_61
- Track 26 : Tallboi_61
- Track 27 : Cyan_62
- Track 28 : JohnDoe_62
- Track 29 : MissSwiss_62
- Track 30 : ObiToo_66
- Track 31 : KeAlii_59
- Track 32 : IUFootball_63
- Track 33 : Liebe_63, Maureen_63
- Track 34 : MaGuCo_56
- Track 35 : Snek_60

- Track 36 : Tweety19_61
- Track 37 : Exile_55
- Track 38 : Jankie_57, GrimEater_55

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 38 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AEgle_59, AGrandiflora_63, Adumb2043_60, Amploria_61, Amyev_61, Asa16_61, Ascela_63, Berrie_61, Cassia_61, Community_61, Crewmate_66, Cyan_62, Elezi_60, Eraser_61, Flutur_61, IUFootball_63, Iter_62, IttyBittyPiggy_61, Janeemi_60, Joemato_62, JohnDoe_62, Jstan_62, JuneStar_61, Kaylissa_63, Lego_61, Lizalica_60, London_61, MaGuCo_56, Mudpuppy_59, Niobe_61, Nitro_62, ObiToo_66, Phives_62, Pixelle_61, Powerpuff_63, Pumpkins_60, Schaffner_60, Simpson_65, Skelbel_62, Subaru_61, Tallboi_61, Tbone_61, TforTroy_62, Tian_60, Tuck_61, Turab_60, Tutumahutu_63, Warda_62, Yang_61, YesChef_61,

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

- Liebe_63, Maureen_63, VResidence_61,

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

- Adolin_63, DrManhattan_64, DrSierra_58, Exile_55, GrimEater_55, Jankie_57, KeAlii_59, MissSwiss_62, PandaPo_62, Reedo_62, Snek_60, Tweety19_61, Wildwest_57,

Summary by start number:

Start 12:

- Found in 3 of 66 (4.5%) of genes in pham
- Manual Annotations of this start: 2 of 50
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Liebe_63 (AZ2), Maureen_63 (AZ2),

Start 13:

- Found in 25 of 66 (37.9%) of genes in pham
- Manual Annotations of this start: 2 of 50
- Called 8.0% of time when present
- Phage (with cluster) where this start called: DrManhattan_64 (AZ1), DrSierra_58 (AZ1),

Start 15:

- Found in 4 of 66 (6.1%) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 25.0% of time when present
- Phage (with cluster) where this start called: VResidence_61 (AZ1),

Start 18:

- Found in 1 of 66 (1.5%) of genes in pham

- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KeAlii_59 (AZ1),

Start 19:

- Found in 2 of 66 (3.0%) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Wildwest_57 (AZ1),

Start 20:

- Found in 9 of 66 (13.6%) of genes in pham
- Manual Annotations of this start: 4 of 50
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Adolin_63 (AZ1), Exile_55 (AZ6), GrimEater_55 (FP), Jankie_57 (FP), MissSwiss_62 (AZ1), PandaPo_62 (AZ1), SneK_60 (AZ3), Tweety19_61 (AZ3),

Start 21:

- Found in 53 of 66 (80.3%) of genes in pham
- Manual Annotations of this start: 38 of 50
- Called 94.3% of time when present
- Phage (with cluster) where this start called: AEgle_59 (AZ1), AGrandiflora_63 (AZ1), Adumb2043_60 (AZ1), Amploria_61 (AZ1), Amyev_61 (AZ1), Asa16_61 (AZ1), Ascela_63 (AZ1), Berrie_61 (AZ1), Cassia_61 (AZ1), Community_61 (AZ1), Crewmate_66 (AZ1), Cyan_62 (AZ1), Elezi_60 (AZ1), Eraser_61 (AZ1), Flutur_61 (AZ), IUFootball_63 (AZ2), Iter_62 (AZ1), IttyBittyPiggy_61 (AZ1), Janeemi_60 (AZ1), Joemato_62 (AZ1), JohnDoe_62 (AZ1), Jstan_62 (AZ1), JuneStar_61 (AZ1), Kaylissa_63 (AZ1), Lego_61 (AZ1), Lizalica_60 (AZ1), London_61 (AZ1), MaGuCo_56 (AZ2), Mudpuppy_59 (AZ1), Niobe_61 (AZ1), Nitro_62 (AZ1), ObiToo_66 (AZ1), Phives_62 (AZ1), Pixelle_61 (AZ1), Powerpuff_63 (AZ1), Pumpkins_60 (AZ1), Schaffner_60 (AZ1), Simpson_65 (AZ1), Skelbel_62 (AZ1), Subaru_61 (AZ1), Tallboi_61 (AZ1), Tbone_61 (AZ1), TforTroy_62 (AZ1), Tian_60 (AZ1), Tuck_61 (AZ1), Turab_60 (AZ1), Tutumahutu_63 (AZ1), Warda_62 (AZ1), Yang_61 (AZ1), YesChef_61 (AZ1),

Start 22:

- Found in 1 of 66 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Reedo_62 (AZ1),

Summary by clusters:

There are 6 clusters represented in this pham: FP, AZ, AZ1, AZ2, AZ3, AZ6,

Info for manual annotations of cluster AZ1:

- Start number 13 was manually annotated 2 times for cluster AZ1.
- Start number 15 was manually annotated 1 time for cluster AZ1.
- Start number 18 was manually annotated 1 time for cluster AZ1.
- Start number 19 was manually annotated 1 time for cluster AZ1.
- Start number 20 was manually annotated 2 times for cluster AZ1.

- Start number 21 was manually annotated 37 times for cluster AZ1.
- Start number 22 was manually annotated 1 time for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 12 was manually annotated 2 times for cluster AZ2.
- Start number 21 was manually annotated 1 time for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 20 was manually annotated 2 times for cluster AZ3.

Gene Information:

Gene: AEgle_59 Start: 40422, Stop: 40757, Start Num: 21

Candidate Starts for AEgle_59:

(Start: 13 @40347 has 2 MA's), (Start: 21 @40422 has 38 MA's), (25, 40467), (27, 40491), (30, 40539),

Gene: AGrandiflora_63 Start: 41322, Stop: 41654, Start Num: 21

Candidate Starts for AGrandiflora_63:

(17, 41283), (Start: 21 @41322 has 38 MA's), (25, 41367), (30, 41439), (34, 41469),

Gene: Adolin_63 Start: 40162, Stop: 40527, Start Num: 20

Candidate Starts for Adolin_63:

(Start: 13 @40087 has 2 MA's), (14, 40105), (Start: 20 @40162 has 4 MA's), (23, 40177), (27, 40237), (33, 40309), (35, 40366), (45, 40459),

Gene: Adumb2043_60 Start: 40446, Stop: 40781, Start Num: 21

Candidate Starts for Adumb2043_60:

(Start: 13 @40371 has 2 MA's), (Start: 21 @40446 has 38 MA's), (25, 40491), (27, 40515), (30, 40563),

Gene: Amploria_61 Start: 40626, Stop: 40961, Start Num: 21

Candidate Starts for Amploria_61:

(Start: 13 @40551 has 2 MA's), (Start: 21 @40626 has 38 MA's), (25, 40671), (27, 40695), (30, 40743),

Gene: Amyev_61 Start: 42012, Stop: 42341, Start Num: 21

Candidate Starts for Amyev_61:

(Start: 13 @41940 has 2 MA's), (Start: 21 @42012 has 38 MA's), (25, 42057), (30, 42129),

Gene: Asa16_61 Start: 41006, Stop: 41341, Start Num: 21

Candidate Starts for Asa16_61:

(Start: 21 @41006 has 38 MA's), (25, 41051), (27, 41075), (30, 41123),

Gene: Ascela_63 Start: 41495, Stop: 41830, Start Num: 21

Candidate Starts for Ascela_63:

(Start: 13 @41423 has 2 MA's), (16, 41456), (Start: 21 @41495 has 38 MA's), (25, 41540), (30, 41612),

Gene: Berrie_61 Start: 41120, Stop: 41446, Start Num: 21

Candidate Starts for Berrie_61:

(Start: 21 @41120 has 38 MA's), (25, 41165), (30, 41237),

Gene: Cassia_61 Start: 41124, Stop: 41462, Start Num: 21
Candidate Starts for Cassia_61:
(Start: 21 @41124 has 38 MA's), (25, 41169), (30, 41241), (34, 41271),

Gene: Community_61 Start: 41392, Stop: 41721, Start Num: 21
Candidate Starts for Community_61:
(17, 41353), (Start: 21 @41392 has 38 MA's), (25, 41437), (27, 41461), (30, 41509), (44, 41656),

Gene: Crewmate_66 Start: 41729, Stop: 42073, Start Num: 21
Candidate Starts for Crewmate_66:
(1, 40931), (2, 40940), (3, 41117), (4, 41120), (5, 41252), (6, 41273), (7, 41330), (10, 41534), (Start: 13 @41657 has 2 MA's), (Start: 21 @41729 has 38 MA's), (25, 41774), (30, 41846),

Gene: Cyan_62 Start: 41066, Stop: 41398, Start Num: 21
Candidate Starts for Cyan_62:
(17, 41027), (Start: 21 @41066 has 38 MA's), (25, 41111), (30, 41183), (34, 41213),

Gene: DrManhattan_64 Start: 39641, Stop: 40081, Start Num: 13
Candidate Starts for DrManhattan_64:
(Start: 13 @39641 has 2 MA's), (14, 39659), (Start: 20 @39716 has 4 MA's), (23, 39731), (27, 39791), (33, 39863), (35, 39920), (45, 40013),

Gene: DrSierra_58 Start: 39809, Stop: 40234, Start Num: 13
Candidate Starts for DrSierra_58:
(Start: 13 @39809 has 2 MA's), (16, 39842), (Start: 19 @39881 has 1 MA's), (23, 39899), (33, 40028), (35, 40085), (36, 40097), (45, 40178),

Gene: Elezi_60 Start: 40763, Stop: 41098, Start Num: 21
Candidate Starts for Elezi_60:
(Start: 21 @40763 has 38 MA's), (25, 40808), (27, 40832), (30, 40880),

Gene: Eraser_61 Start: 41013, Stop: 41348, Start Num: 21
Candidate Starts for Eraser_61:
(Start: 21 @41013 has 38 MA's), (25, 41058), (27, 41082), (30, 41130),

Gene: Exile_55 Start: 42028, Stop: 42330, Start Num: 20
Candidate Starts for Exile_55:
(Start: 13 @41956 has 2 MA's), (Start: 20 @42028 has 4 MA's), (31, 42139), (36, 42226), (45, 42301),

Gene: Flutur_61 Start: 41341, Stop: 41676, Start Num: 21
Candidate Starts for Flutur_61:
(17, 41302), (Start: 21 @41341 has 38 MA's), (25, 41386), (30, 41458), (34, 41488),

Gene: GrimEater_55 Start: 37825, Stop: 38112, Start Num: 20
Candidate Starts for GrimEater_55:
(Start: 13 @37765 has 2 MA's), (Start: 15 @37783 has 1 MA's), (Start: 20 @37825 has 4 MA's),

Gene: IUFootball_63 Start: 43049, Stop: 43444, Start Num: 21
Candidate Starts for IUFootball_63:
(Start: 12 @42953 has 2 MA's), (Start: 21 @43049 has 38 MA's), (27, 43112), (36, 43247), (39, 43295), (48, 43358),

Gene: Iter_62 Start: 41266, Stop: 41601, Start Num: 21

Candidate Starts for Iter_62:

(Start: 13 @41194 has 2 MA's), (16, 41227), (Start: 21 @41266 has 38 MA's), (25, 41311), (30, 41383),

Gene: IttyBittyPiggy_61 Start: 39364, Stop: 39705, Start Num: 21

Candidate Starts for IttyBittyPiggy_61:

(Start: 13 @39292 has 2 MA's), (Start: 21 @39364 has 38 MA's), (25, 39409), (30, 39481), (34, 39511),

Gene: Janeemi_60 Start: 40891, Stop: 41220, Start Num: 21

Candidate Starts for Janeemi_60:

(16, 40849), (Start: 21 @40891 has 38 MA's), (25, 40936), (27, 40960), (30, 41008), (44, 41155),

Gene: Jankie_57 Start: 38007, Stop: 38294, Start Num: 20

Candidate Starts for Jankie_57:

(Start: 13 @37947 has 2 MA's), (Start: 15 @37965 has 1 MA's), (Start: 20 @38007 has 4 MA's),

Gene: Joemato_62 Start: 41116, Stop: 41451, Start Num: 21

Candidate Starts for Joemato_62:

(17, 41077), (Start: 21 @41116 has 38 MA's), (25, 41161), (30, 41233), (34, 41263),

Gene: JohnDoe_62 Start: 41160, Stop: 41492, Start Num: 21

Candidate Starts for JohnDoe_62:

(17, 41121), (Start: 21 @41160 has 38 MA's), (25, 41205), (30, 41277), (34, 41307),

Gene: Jstan_62 Start: 40767, Stop: 41102, Start Num: 21

Candidate Starts for Jstan_62:

(Start: 21 @40767 has 38 MA's), (25, 40812), (27, 40836), (30, 40884),

Gene: JuneStar_61 Start: 42226, Stop: 42558, Start Num: 21

Candidate Starts for JuneStar_61:

(11, 42073), (Start: 13 @42154 has 2 MA's), (Start: 21 @42226 has 38 MA's), (25, 42271), (30, 42343), (34, 42373), (44, 42490),

Gene: Kaylissa_63 Start: 41523, Stop: 41855, Start Num: 21

Candidate Starts for Kaylissa_63:

(17, 41484), (Start: 21 @41523 has 38 MA's), (25, 41568), (30, 41640), (34, 41670),

Gene: KeAlii_59 Start: 39420, Stop: 39800, Start Num: 18

Candidate Starts for KeAlii_59:

(Start: 18 @39420 has 1 MA's), (29, 39558), (30, 39564), (35, 39633), (40, 39690),

Gene: Lego_61 Start: 40842, Stop: 41174, Start Num: 21

Candidate Starts for Lego_61:

(17, 40803), (Start: 21 @40842 has 38 MA's), (25, 40887), (30, 40959), (34, 40989),

Gene: Liebe_63 Start: 42952, Stop: 43443, Start Num: 12

Candidate Starts for Liebe_63:

(Start: 12 @42952 has 2 MA's), (Start: 21 @43048 has 38 MA's), (27, 43111), (36, 43246), (39, 43294), (48, 43357),

Gene: Lizalica_60 Start: 40320, Stop: 40652, Start Num: 21

Candidate Starts for Lizalica_60:

(Start: 21 @40320 has 38 MA's), (25, 40365), (30, 40437), (34, 40467), (46, 40599),

Gene: London_61 Start: 41004, Stop: 41339, Start Num: 21
Candidate Starts for London_61:
(Start: 21 @41004 has 38 MA's), (25, 41049), (27, 41073), (30, 41121),

Gene: MaGuCo_56 Start: 41051, Stop: 41443, Start Num: 21
Candidate Starts for MaGuCo_56:
(8, 40790), (Start: 21 @41051 has 38 MA's), (26, 41096), (27, 41111), (36, 41246), (39, 41294),

Gene: Maureen_63 Start: 42951, Stop: 43442, Start Num: 12
Candidate Starts for Maureen_63:
(Start: 12 @42951 has 2 MA's), (Start: 21 @43047 has 38 MA's), (27, 43110), (36, 43245), (39, 43293),
(48, 43356),

Gene: MissSwiss_62 Start: 39726, Stop: 40088, Start Num: 20
Candidate Starts for MissSwiss_62:
(Start: 13 @39651 has 2 MA's), (14, 39669), (Start: 20 @39726 has 4 MA's), (23, 39741), (33, 39870),
(35, 39927), (45, 40020),

Gene: Mudpuppy_59 Start: 41090, Stop: 41422, Start Num: 21
Candidate Starts for Mudpuppy_59:
(Start: 13 @41018 has 2 MA's), (Start: 21 @41090 has 38 MA's), (25, 41135), (30, 41207), (34, 41237),
(46, 41369),

Gene: Niobe_61 Start: 41007, Stop: 41342, Start Num: 21
Candidate Starts for Niobe_61:
(Start: 21 @41007 has 38 MA's), (25, 41052), (27, 41076), (30, 41124),

Gene: Nitro_62 Start: 41706, Stop: 42038, Start Num: 21
Candidate Starts for Nitro_62:
(Start: 21 @41706 has 38 MA's), (25, 41751), (30, 41823), (34, 41853),

Gene: ObiToo_66 Start: 41345, Stop: 41689, Start Num: 21
Candidate Starts for ObiToo_66:
(Start: 13 @41273 has 2 MA's), (Start: 21 @41345 has 38 MA's), (25, 41390), (30, 41462),

Gene: PandaPo_62 Start: 39734, Stop: 40096, Start Num: 20
Candidate Starts for PandaPo_62:
(Start: 13 @39659 has 2 MA's), (14, 39677), (Start: 20 @39734 has 4 MA's), (23, 39749), (33, 39878),
(35, 39935), (45, 40028),

Gene: Phives_62 Start: 41507, Stop: 41836, Start Num: 21
Candidate Starts for Phives_62:
(17, 41468), (Start: 21 @41507 has 38 MA's), (25, 41552), (27, 41576), (30, 41624), (44, 41771),

Gene: Pixelle_61 Start: 42113, Stop: 42442, Start Num: 21
Candidate Starts for Pixelle_61:
(Start: 13 @42041 has 2 MA's), (Start: 21 @42113 has 38 MA's), (25, 42158), (30, 42230),

Gene: Powerpuff_63 Start: 42045, Stop: 42377, Start Num: 21
Candidate Starts for Powerpuff_63:
(17, 42006), (Start: 21 @42045 has 38 MA's), (25, 42090), (30, 42162), (34, 42192),

Gene: Pumpkins_60 Start: 41637, Stop: 41981, Start Num: 21

Candidate Starts for Pumpkins_60:

(Start: 21 @41637 has 38 MA's), (25, 41682), (30, 41754), (34, 41784),

Gene: Reedo_62 Start: 39642, Stop: 39962, Start Num: 22

Candidate Starts for Reedo_62:

(Start: 15 @39588 has 1 MA's), (Start: 22 @39642 has 1 MA's), (36, 39843), (38, 39852), (42, 39897), (43, 39906),

Gene: Schaffner_60 Start: 41330, Stop: 41665, Start Num: 21

Candidate Starts for Schaffner_60:

(17, 41291), (Start: 21 @41330 has 38 MA's), (25, 41375), (30, 41447), (34, 41477), (44, 41594),

Gene: Simpson_65 Start: 41120, Stop: 41455, Start Num: 21

Candidate Starts for Simpson_65:

(17, 41081), (Start: 21 @41120 has 38 MA's), (25, 41165), (30, 41237), (34, 41267),

Gene: Skelbel_62 Start: 41007, Stop: 41342, Start Num: 21

Candidate Starts for Skelbel_62:

(Start: 21 @41007 has 38 MA's), (25, 41052), (27, 41076), (30, 41124),

Gene: Snek_60 Start: 38237, Stop: 38578, Start Num: 20

Candidate Starts for Snek_60:

(9, 38042), (Start: 20 @38237 has 4 MA's), (23, 38252), (24, 38276), (32, 38360), (35, 38426), (37, 38441), (41, 38486), (49, 38555),

Gene: Subaru_61 Start: 40763, Stop: 41098, Start Num: 21

Candidate Starts for Subaru_61:

(Start: 21 @40763 has 38 MA's), (25, 40808), (27, 40832), (30, 40880),

Gene: Tallboi_61 Start: 41005, Stop: 41346, Start Num: 21

Candidate Starts for Tallboi_61:

(Start: 13 @40930 has 2 MA's), (Start: 21 @41005 has 38 MA's), (25, 41053), (27, 41077), (30, 41125), (34, 41155), (43, 41269), (46, 41287),

Gene: Tbone_61 Start: 41486, Stop: 41824, Start Num: 21

Candidate Starts for Tbone_61:

(Start: 13 @41414 has 2 MA's), (Start: 21 @41486 has 38 MA's), (25, 41531), (30, 41603), (34, 41633), (46, 41765),

Gene: TforTroy_62 Start: 41302, Stop: 41634, Start Num: 21

Candidate Starts for TforTroy_62:

(Start: 21 @41302 has 38 MA's), (25, 41347), (30, 41419), (34, 41449),

Gene: Tian_60 Start: 42011, Stop: 42340, Start Num: 21

Candidate Starts for Tian_60:

(Start: 13 @41939 has 2 MA's), (Start: 21 @42011 has 38 MA's), (25, 42056), (30, 42128),

Gene: Tuck_61 Start: 41295, Stop: 41624, Start Num: 21

Candidate Starts for Tuck_61:

(17, 41256), (Start: 21 @41295 has 38 MA's), (25, 41340), (27, 41364), (30, 41412), (44, 41559),

Gene: Turab_60 Start: 40466, Stop: 40801, Start Num: 21

Candidate Starts for Turab_60:

(Start: 13 @40391 has 2 MA's), (Start: 21 @40466 has 38 MA's), (25, 40511), (27, 40535), (30, 40583),

Gene: Tutumahutu_63 Start: 41088, Stop: 41420, Start Num: 21

Candidate Starts for Tutumahutu_63:

(17, 41049), (Start: 21 @41088 has 38 MA's), (25, 41133), (30, 41205), (34, 41235),

Gene: Tweety19_61 Start: 38238, Stop: 38579, Start Num: 20

Candidate Starts for Tweety19_61:

(9, 38043), (Start: 20 @38238 has 4 MA's), (23, 38253), (32, 38361), (35, 38427), (37, 38442), (41, 38487), (49, 38556),

Gene: VResidence_61 Start: 38974, Stop: 39348, Start Num: 15

Candidate Starts for VResidence_61:

(Start: 15 @38974 has 1 MA's), (Start: 21 @39028 has 38 MA's), (36, 39223), (47, 39304),

Gene: Warda_62 Start: 41212, Stop: 41550, Start Num: 21

Candidate Starts for Warda_62:

(Start: 13 @41140 has 2 MA's), (Start: 21 @41212 has 38 MA's), (25, 41257), (30, 41329), (34, 41359), (46, 41491),

Gene: Wildwest_57 Start: 40861, Stop: 41223, Start Num: 19

Candidate Starts for Wildwest_57:

(Start: 19 @40861 has 1 MA's), (23, 40879), (28, 40969), (33, 41008), (35, 41065), (45, 41158),

Gene: Yang_61 Start: 40955, Stop: 41278, Start Num: 21

Candidate Starts for Yang_61:

(Start: 21 @40955 has 38 MA's), (25, 41000), (30, 41072), (34, 41102),

Gene: YesChef_61 Start: 40904, Stop: 41236, Start Num: 21

Candidate Starts for YesChef_61:

(17, 40865), (Start: 21 @40904 has 38 MA's), (25, 40949), (30, 41021), (34, 41051),