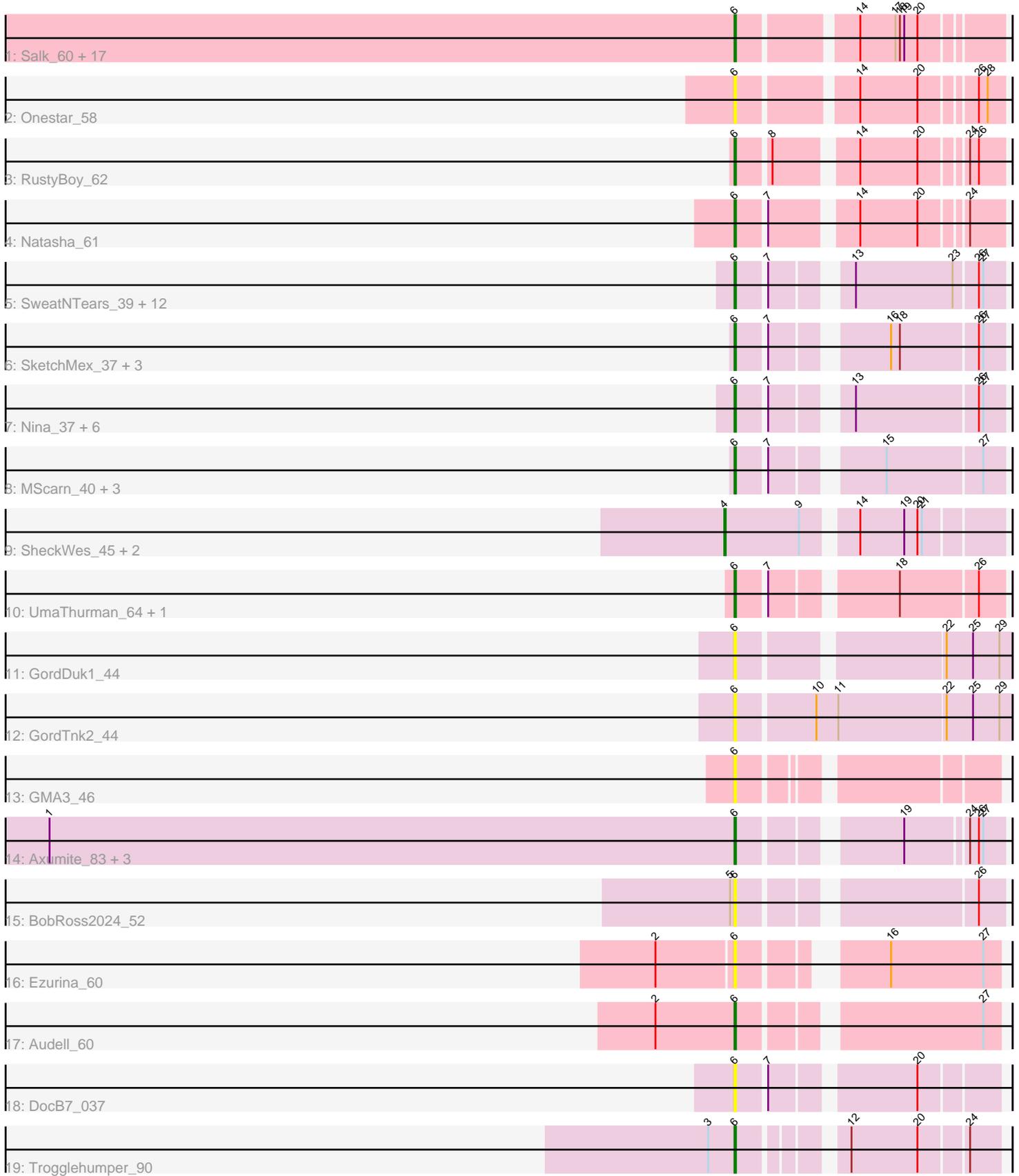


Pham 289389



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 289389 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289389 has 66 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Salk\_60, Spain\_61, Boog\_59, Egad\_60, Stayer\_60, Sloopyjoe\_60, Raunak\_62, DoctorPepper\_59, StarLord\_60, BronxBay\_60, Linda\_60, Michelle\_60, HerbBucket\_59, Djungelskog\_59, Jeremy4pt0\_58, ProfFrink\_60, Shiba\_59, MrAaronian\_60
- Track 2 : Onestar\_58
- Track 3 : RustyBoy\_62
- Track 4 : Natasha\_61
- Track 5 : SweatNTears\_39, Agatha\_37, Starburst\_39, Cozz\_36, RedBaron\_40, Quasar\_38, PsychoKiller\_37, Sopespian\_37, Elliott\_38, Axym\_37, RADical\_39, GoldHunter\_39, Bubble\_36
- Track 6 : SketchMex\_37, Biskit\_39, Blondies\_40, Troje\_39
- Track 7 : Nina\_37, MunkgeeRoachy\_36, Typhonmarchy\_36, RSchmailzl\_39, Burnsey\_37, Socotra\_39, Carsonalex\_41
- Track 8 : MScarn\_40, Horseradish\_39, Buttrmlkdreams\_39, Yummy\_39
- Track 9 : SheckWes\_45, ElJefes\_43, McDazzle\_44
- Track 10 : UmaThurman\_64, PhrostedPhlake\_68
- Track 11 : GordDuk1\_44
- Track 12 : GordTnk2\_44
- Track 13 : GMA3\_46
- Track 14 : Axumite\_83, Shatter\_83, Fresco\_83, Ligma\_83
- Track 15 : BobRoss2024\_52
- Track 16 : Ezurina\_60
- Track 17 : Audell\_60
- Track 18 : DocB7\_037
- Track 19 : Trogglehumper\_90

### ***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 42 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agatha\_37, Audell\_60, Axumite\_83, Axym\_37, Biskit\_39, Blondies\_40, BobRoss2024\_52, Boog\_59, BronxBay\_60, Bubble\_36, Burnsey\_37,

Buttrmlkdreams\_39, Carsonalex\_41, Cozz\_36, Djungelskog\_59, DocB7\_037, DoctorPepper\_59, Egad\_60, Elliott\_38, Ezurina\_60, Fresco\_83, GMA3\_46, GoldHunter\_39, GordDuk1\_44, GordTnk2\_44, HerbBucket\_59, Horseradish\_39, Jeremy4pt0\_58, Ligma\_83, Linda\_60, MScarn\_40, Michelle\_60, MrAaronian\_60, MunkgeeRoachy\_36, Natasha\_61, Nina\_37, Onestar\_58, PhrostedPhlake\_68, ProfFrink\_60, PsychoKiller\_37, Quasar\_38, RADical\_39, RSchmailzl\_39, Raunak\_62, RedBaron\_40, RustyBoy\_62, Salk\_60, Shatter\_83, Shiba\_59, SketchMex\_37, Sloopyjoe\_60, Socotra\_39, Sopespian\_37, Spain\_61, StarLord\_60, Starburst\_39, Stayer\_60, SweatNTears\_39, Trogglehumper\_90, Troje\_39, Typhonomachy\_36, UmaThurman\_64, Yummy\_39,

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

- 

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

- ElJefes\_43, McDazzle\_44, SheckWes\_45,

### Summary by start number:

Start 4:

- Found in 3 of 66 ( 4.5% ) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ElJefes\_43 (CT), McDazzle\_44 (CT), SheckWes\_45 (CT),

Start 6:

- Found in 63 of 66 ( 95.5% ) of genes in pham
- Manual Annotations of this start: 42 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agatha\_37 (CT), Audell\_60 (FR), Axumite\_83 (DR), Axym\_37 (CT), Biskit\_39 (CT), Blondies\_40 (CT), BobRoss2024\_52 (DR), Boog\_59 (AW), BronxBay\_60 (AW), Bubble\_36 (CT), Burnsey\_37 (CT), Buttrmlkdreams\_39 (CT), Carsonalex\_41 (CT), Cozz\_36 (CT), Djungelskog\_59 (AW), DocB7\_037 (singleton), DoctorPepper\_59 (AW), Egad\_60 (AW), Elliott\_38 (CT), Ezurina\_60 (FR), Fresco\_83 (DR), GMA3\_46 (DF2), GoldHunter\_39 (CT), GordDuk1\_44 (DF1), GordTnk2\_44 (DF1), HerbBucket\_59 (AW), Horseradish\_39 (CT), Jeremy4pt0\_58 (AW), Ligma\_83 (DR), Linda\_60 (AW), MScarn\_40 (CT), Michelle\_60 (AW), MrAaronian\_60 (AW), MunkgeeRoachy\_36 (CT), Natasha\_61 (AW), Nina\_37 (CT), Onestar\_58 (AW), PhrostedPhlake\_68 (CV), ProfFrink\_60 (AW), PsychoKiller\_37 (CT), Quasar\_38 (CT), RADical\_39 (CT), RSchmailzl\_39 (CT), Raunak\_62 (AW), RedBaron\_40 (CT), RustyBoy\_62 (AW), Salk\_60 (AW), Shatter\_83 (DR), Shiba\_59 (AW), SketchMex\_37 (CT), Sloopyjoe\_60 (AW), Socotra\_39 (CT), Sopespian\_37 (CT), Spain\_61 (AW), StarLord\_60 (AW), Starburst\_39 (CT), Stayer\_60 (AW), SweatNTears\_39 (CT), Trogglehumper\_90 (singleton), Troje\_39 (CT), Typhonomachy\_36 (CT), UmaThurman\_64 (CV), Yummy\_39 (CT),

### Summary by clusters:

There are 8 clusters represented in this pham: FR, DF1, singleton, DF2, AW, DR, CV, CT,

Info for manual annotations of cluster AW:

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

Info for manual annotations of cluster CT:

- Start number 4 was manually annotated 1 time for cluster CT.
- Start number 6 was manually annotated 18 times for cluster CT.

Info for manual annotations of cluster CV:

- Start number 6 was manually annotated 2 times for cluster CV.

Info for manual annotations of cluster DR:

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

Info for manual annotations of cluster FR:

- Start number 6 was manually annotated 1 time for cluster FR.

### ***Gene Information:***

Gene: Agatha\_37 Start: 27161, Stop: 27003, Start Num: 6

Candidate Starts for Agatha\_37:

(Start: 6 @27161 has 42 MA's), (7, 27143), (13, 27101), (23, 27035), (26, 27020), (27, 27017),

Gene: Audell\_60 Start: 38775, Stop: 38617, Start Num: 6

Candidate Starts for Audell\_60:

(2, 38829), (Start: 6 @38775 has 42 MA's), (27, 38628),

Gene: Axumite\_83 Start: 60379, Stop: 60224, Start Num: 6

Candidate Starts for Axumite\_83:

(1, 60847), (Start: 6 @60379 has 42 MA's), (19, 60286), (24, 60247), (26, 60241), (27, 60238),

Gene: Axym\_37 Start: 27139, Stop: 26981, Start Num: 6

Candidate Starts for Axym\_37:

(Start: 6 @27139 has 42 MA's), (7, 27121), (13, 27079), (23, 27013), (26, 26998), (27, 26995),

Gene: Biskit\_39 Start: 27114, Stop: 26956, Start Num: 6

Candidate Starts for Biskit\_39:

(Start: 6 @27114 has 42 MA's), (7, 27096), (16, 27030), (18, 27024), (26, 26973), (27, 26970),

Gene: Blondies\_40 Start: 27432, Stop: 27274, Start Num: 6

Candidate Starts for Blondies\_40:

(Start: 6 @27432 has 42 MA's), (7, 27414), (16, 27348), (18, 27342), (26, 27291), (27, 27288),

Gene: BobRoss2024\_52 Start: 46394, Stop: 46236, Start Num: 6

Candidate Starts for BobRoss2024\_52:

(5, 46397), (Start: 6 @46394 has 42 MA's), (26, 46253),

Gene: Boog\_59 Start: 40730, Stop: 40891, Start Num: 6

Candidate Starts for Boog\_59:

(Start: 6 @40730 has 42 MA's), (14, 40802), (17, 40826), (18, 40829), (19, 40832), (20, 40841),

Gene: BronxBay\_60 Start: 40986, Stop: 41147, Start Num: 6  
Candidate Starts for BronxBay\_60:  
(Start: 6 @40986 has 42 MA's), (14, 41058), (17, 41082), (18, 41085), (19, 41088), (20, 41097),

Gene: Bubble\_36 Start: 26748, Stop: 26590, Start Num: 6  
Candidate Starts for Bubble\_36:  
(Start: 6 @26748 has 42 MA's), (7, 26730), (13, 26688), (23, 26622), (26, 26607), (27, 26604),

Gene: Burnsey\_37 Start: 27152, Stop: 26994, Start Num: 6  
Candidate Starts for Burnsey\_37:  
(Start: 6 @27152 has 42 MA's), (7, 27134), (13, 27092), (26, 27011), (27, 27008),

Gene: Buttrmlkdreams\_39 Start: 27438, Stop: 27280, Start Num: 6  
Candidate Starts for Buttrmlkdreams\_39:  
(Start: 6 @27438 has 42 MA's), (7, 27420), (15, 27357), (27, 27294),

Gene: Carsonalex\_41 Start: 27189, Stop: 27031, Start Num: 6  
Candidate Starts for Carsonalex\_41:  
(Start: 6 @27189 has 42 MA's), (7, 27171), (13, 27129), (26, 27048), (27, 27045),

Gene: Cozz\_36 Start: 26749, Stop: 26591, Start Num: 6  
Candidate Starts for Cozz\_36:  
(Start: 6 @26749 has 42 MA's), (7, 26731), (13, 26689), (23, 26623), (26, 26608), (27, 26605),

Gene: Djungelskog\_59 Start: 40985, Stop: 41146, Start Num: 6  
Candidate Starts for Djungelskog\_59:  
(Start: 6 @40985 has 42 MA's), (14, 41057), (17, 41081), (18, 41084), (19, 41087), (20, 41096),

Gene: DocB7\_037 Start: 37679, Stop: 37524, Start Num: 6  
Candidate Starts for DocB7\_037:  
(Start: 6 @37679 has 42 MA's), (7, 37661), (20, 37574),

Gene: DoctorPepper\_59 Start: 40690, Stop: 40851, Start Num: 6  
Candidate Starts for DoctorPepper\_59:  
(Start: 6 @40690 has 42 MA's), (14, 40762), (17, 40786), (18, 40789), (19, 40792), (20, 40801),

Gene: Egad\_60 Start: 40987, Stop: 41148, Start Num: 6  
Candidate Starts for Egad\_60:  
(Start: 6 @40987 has 42 MA's), (14, 41059), (17, 41083), (18, 41086), (19, 41089), (20, 41098),

Gene: ElJefes\_43 Start: 30713, Stop: 30540, Start Num: 4  
Candidate Starts for ElJefes\_43:  
(Start: 4 @30713 has 1 MA's), (9, 30662), (14, 30632), (19, 30602), (20, 30593), (21, 30590),

Gene: Elliott\_38 Start: 27160, Stop: 27002, Start Num: 6  
Candidate Starts for Elliott\_38:  
(Start: 6 @27160 has 42 MA's), (7, 27142), (13, 27100), (23, 27034), (26, 27019), (27, 27016),

Gene: Ezurina\_60 Start: 36586, Stop: 36434, Start Num: 6  
Candidate Starts for Ezurina\_60:  
(2, 36637), (Start: 6 @36586 has 42 MA's), (16, 36508), (27, 36445),

Gene: Fresco\_83 Start: 60385, Stop: 60230, Start Num: 6  
Candidate Starts for Fresco\_83:  
(1, 60853), (Start: 6 @60385 has 42 MA's), (19, 60292), (24, 60253), (26, 60247), (27, 60244),

Gene: GMA3\_46 Start: 44762, Stop: 44610, Start Num: 6  
Candidate Starts for GMA3\_46:  
(Start: 6 @44762 has 42 MA's),

Gene: GoldHunter\_39 Start: 27161, Stop: 27003, Start Num: 6  
Candidate Starts for GoldHunter\_39:  
(Start: 6 @27161 has 42 MA's), (7, 27143), (13, 27101), (23, 27035), (26, 27020), (27, 27017),

Gene: GordDuk1\_44 Start: 42833, Stop: 42663, Start Num: 6  
Candidate Starts for GordDuk1\_44:  
(Start: 6 @42833 has 42 MA's), (22, 42707), (25, 42689), (29, 42671),

Gene: GordTnk2\_44 Start: 42811, Stop: 42629, Start Num: 6  
Candidate Starts for GordTnk2\_44:  
(Start: 6 @42811 has 42 MA's), (10, 42760), (11, 42745), (22, 42673), (25, 42655), (29, 42637),

Gene: HerbBucket\_59 Start: 40727, Stop: 40888, Start Num: 6  
Candidate Starts for HerbBucket\_59:  
(Start: 6 @40727 has 42 MA's), (14, 40799), (17, 40823), (18, 40826), (19, 40829), (20, 40838),

Gene: Horseradish\_39 Start: 26966, Stop: 26808, Start Num: 6  
Candidate Starts for Horseradish\_39:  
(Start: 6 @26966 has 42 MA's), (7, 26948), (15, 26885), (27, 26822),

Gene: Jeremy4pt0\_58 Start: 40685, Stop: 40846, Start Num: 6  
Candidate Starts for Jeremy4pt0\_58:  
(Start: 6 @40685 has 42 MA's), (14, 40757), (17, 40781), (18, 40784), (19, 40787), (20, 40796),

Gene: Ligma\_83 Start: 60379, Stop: 60224, Start Num: 6  
Candidate Starts for Ligma\_83:  
(1, 60847), (Start: 6 @60379 has 42 MA's), (19, 60286), (24, 60247), (26, 60241), (27, 60238),

Gene: Linda\_60 Start: 40983, Stop: 41144, Start Num: 6  
Candidate Starts for Linda\_60:  
(Start: 6 @40983 has 42 MA's), (14, 41055), (17, 41079), (18, 41082), (19, 41085), (20, 41094),

Gene: MScarn\_40 Start: 27106, Stop: 26948, Start Num: 6  
Candidate Starts for MScarn\_40:  
(Start: 6 @27106 has 42 MA's), (7, 27088), (15, 27025), (27, 26962),

Gene: McDazzle\_44 Start: 30707, Stop: 30534, Start Num: 4  
Candidate Starts for McDazzle\_44:  
(Start: 4 @30707 has 1 MA's), (9, 30656), (14, 30626), (19, 30596), (20, 30587), (21, 30584),

Gene: Michelle\_60 Start: 40985, Stop: 41146, Start Num: 6  
Candidate Starts for Michelle\_60:  
(Start: 6 @40985 has 42 MA's), (14, 41057), (17, 41081), (18, 41084), (19, 41087), (20, 41096),

Gene: MrAaronian\_60 Start: 40985, Stop: 41146, Start Num: 6

Candidate Starts for MrAaronian\_60:

(Start: 6 @40985 has 42 MA's), (14, 41057), (17, 41081), (18, 41084), (19, 41087), (20, 41096),

Gene: MunkgeeRoachy\_36 Start: 26623, Stop: 26465, Start Num: 6

Candidate Starts for MunkgeeRoachy\_36:

(Start: 6 @26623 has 42 MA's), (7, 26605), (13, 26563), (26, 26482), (27, 26479),

Gene: Natasha\_61 Start: 40720, Stop: 40878, Start Num: 6

Candidate Starts for Natasha\_61:

(Start: 6 @40720 has 42 MA's), (7, 40738), (14, 40789), (20, 40828), (24, 40855),

Gene: Nina\_37 Start: 27285, Stop: 27127, Start Num: 6

Candidate Starts for Nina\_37:

(Start: 6 @27285 has 42 MA's), (7, 27267), (13, 27225), (26, 27144), (27, 27141),

Gene: Onestar\_58 Start: 40746, Stop: 40907, Start Num: 6

Candidate Starts for Onestar\_58:

(Start: 6 @40746 has 42 MA's), (14, 40818), (20, 40857), (26, 40890), (28, 40896),

Gene: PhrostedPhlake\_68 Start: 41801, Stop: 41962, Start Num: 6

Candidate Starts for PhrostedPhlake\_68:

(Start: 6 @41801 has 42 MA's), (7, 41819), (18, 41894), (26, 41945),

Gene: ProfFrink\_60 Start: 40986, Stop: 41147, Start Num: 6

Candidate Starts for ProfFrink\_60:

(Start: 6 @40986 has 42 MA's), (14, 41058), (17, 41082), (18, 41085), (19, 41088), (20, 41097),

Gene: PsychoKiller\_37 Start: 27161, Stop: 27003, Start Num: 6

Candidate Starts for PsychoKiller\_37:

(Start: 6 @27161 has 42 MA's), (7, 27143), (13, 27101), (23, 27035), (26, 27020), (27, 27017),

Gene: Quasar\_38 Start: 27709, Stop: 27551, Start Num: 6

Candidate Starts for Quasar\_38:

(Start: 6 @27709 has 42 MA's), (7, 27691), (13, 27649), (23, 27583), (26, 27568), (27, 27565),

Gene: RADical\_39 Start: 27155, Stop: 26997, Start Num: 6

Candidate Starts for RADical\_39:

(Start: 6 @27155 has 42 MA's), (7, 27137), (13, 27095), (23, 27029), (26, 27014), (27, 27011),

Gene: RSchmailzl\_39 Start: 27198, Stop: 27040, Start Num: 6

Candidate Starts for RSchmailzl\_39:

(Start: 6 @27198 has 42 MA's), (7, 27180), (13, 27138), (26, 27057), (27, 27054),

Gene: Raunak\_62 Start: 40683, Stop: 40844, Start Num: 6

Candidate Starts for Raunak\_62:

(Start: 6 @40683 has 42 MA's), (14, 40755), (17, 40779), (18, 40782), (19, 40785), (20, 40794),

Gene: RedBaron\_40 Start: 27398, Stop: 27240, Start Num: 6

Candidate Starts for RedBaron\_40:

(Start: 6 @27398 has 42 MA's), (7, 27380), (13, 27338), (23, 27272), (26, 27257), (27, 27254),

Gene: RustyBoy\_62 Start: 40919, Stop: 41077, Start Num: 6

Candidate Starts for RustyBoy\_62:

(Start: 6 @40919 has 42 MA's), (8, 40940), (14, 40988), (20, 41027), (24, 41054), (26, 41060),

Gene: Salk\_60 Start: 40983, Stop: 41144, Start Num: 6

Candidate Starts for Salk\_60:

(Start: 6 @40983 has 42 MA's), (14, 41055), (17, 41079), (18, 41082), (19, 41085), (20, 41094),

Gene: Shatter\_83 Start: 60379, Stop: 60224, Start Num: 6

Candidate Starts for Shatter\_83:

(1, 60847), (Start: 6 @60379 has 42 MA's), (19, 60286), (24, 60247), (26, 60241), (27, 60238),

Gene: SheckWes\_45 Start: 30252, Stop: 30079, Start Num: 4

Candidate Starts for SheckWes\_45:

(Start: 4 @30252 has 1 MA's), (9, 30201), (14, 30171), (19, 30141), (20, 30132), (21, 30129),

Gene: Shiba\_59 Start: 40683, Stop: 40844, Start Num: 6

Candidate Starts for Shiba\_59:

(Start: 6 @40683 has 42 MA's), (14, 40755), (17, 40779), (18, 40782), (19, 40785), (20, 40794),

Gene: SketchMex\_37 Start: 27114, Stop: 26956, Start Num: 6

Candidate Starts for SketchMex\_37:

(Start: 6 @27114 has 42 MA's), (7, 27096), (16, 27030), (18, 27024), (26, 26973), (27, 26970),

Gene: Sloopyjoe\_60 Start: 40987, Stop: 41148, Start Num: 6

Candidate Starts for Sloopyjoe\_60:

(Start: 6 @40987 has 42 MA's), (14, 41059), (17, 41083), (18, 41086), (19, 41089), (20, 41098),

Gene: Socotra\_39 Start: 27160, Stop: 27002, Start Num: 6

Candidate Starts for Socotra\_39:

(Start: 6 @27160 has 42 MA's), (7, 27142), (13, 27100), (26, 27019), (27, 27016),

Gene: Sopespian\_37 Start: 27162, Stop: 27004, Start Num: 6

Candidate Starts for Sopespian\_37:

(Start: 6 @27162 has 42 MA's), (7, 27144), (13, 27102), (23, 27036), (26, 27021), (27, 27018),

Gene: Spain\_61 Start: 40985, Stop: 41146, Start Num: 6

Candidate Starts for Spain\_61:

(Start: 6 @40985 has 42 MA's), (14, 41057), (17, 41081), (18, 41084), (19, 41087), (20, 41096),

Gene: StarLord\_60 Start: 40986, Stop: 41147, Start Num: 6

Candidate Starts for StarLord\_60:

(Start: 6 @40986 has 42 MA's), (14, 41058), (17, 41082), (18, 41085), (19, 41088), (20, 41097),

Gene: Starburst\_39 Start: 27155, Stop: 26997, Start Num: 6

Candidate Starts for Starburst\_39:

(Start: 6 @27155 has 42 MA's), (7, 27137), (13, 27095), (23, 27029), (26, 27014), (27, 27011),

Gene: Stayer\_60 Start: 40983, Stop: 41144, Start Num: 6

Candidate Starts for Stayer\_60:

(Start: 6 @40983 has 42 MA's), (14, 41055), (17, 41079), (18, 41082), (19, 41085), (20, 41094),

Gene: SweatNTears\_39 Start: 27058, Stop: 26900, Start Num: 6

Candidate Starts for SweatNTears\_39:

(Start: 6 @27058 has 42 MA's), (7, 27040), (13, 26998), (23, 26932), (26, 26917), (27, 26914),

Gene: Trogglehumper\_90 Start: 66999, Stop: 66847, Start Num: 6  
Candidate Starts for Trogglehumper\_90:  
(3, 67017), (Start: 6 @66999 has 42 MA's), (12, 66942), (20, 66897), (24, 66867),

Gene: Troje\_39 Start: 27463, Stop: 27305, Start Num: 6  
Candidate Starts for Troje\_39:  
(Start: 6 @27463 has 42 MA's), (7, 27445), (16, 27379), (18, 27373), (26, 27322), (27, 27319),

Gene: Typhonomachy\_36 Start: 26780, Stop: 26622, Start Num: 6  
Candidate Starts for Typhonomachy\_36:  
(Start: 6 @26780 has 42 MA's), (7, 26762), (13, 26720), (26, 26639), (27, 26636),

Gene: UmaThurman\_64 Start: 41829, Stop: 41990, Start Num: 6  
Candidate Starts for UmaThurman\_64:  
(Start: 6 @41829 has 42 MA's), (7, 41847), (18, 41922), (26, 41973),

Gene: Yummy\_39 Start: 27080, Stop: 26922, Start Num: 6  
Candidate Starts for Yummy\_39:  
(Start: 6 @27080 has 42 MA's), (7, 27062), (15, 26999), (27, 26936),