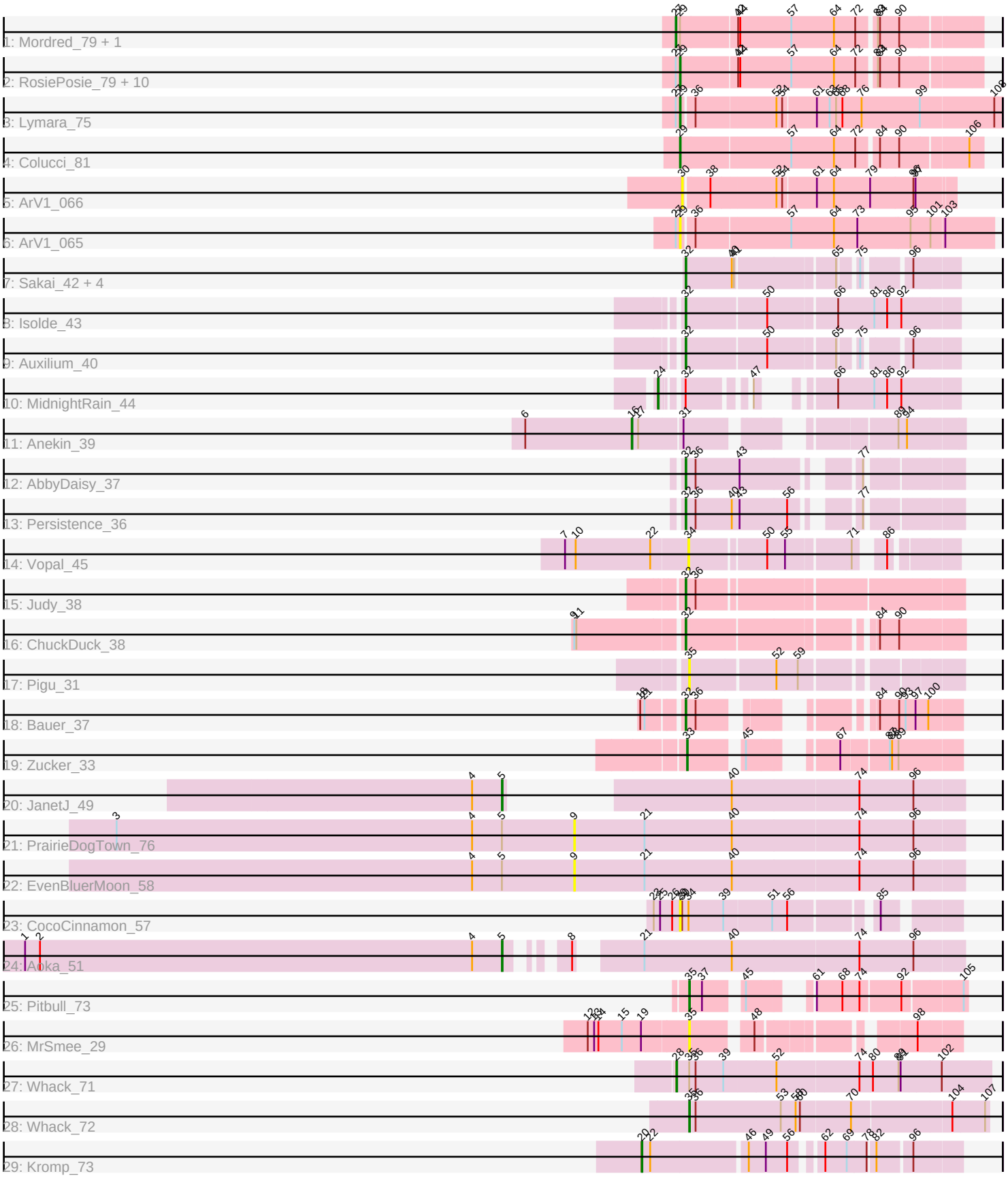
# Pham 200393


1: Mordred_79 + 1
2: RosiePosie_79 + 10
3: Lymara_75
4: Colucci_81
5: ArV1_066
6: ArV1_065
7: Sakai_42 + 4
8: Isolde_43
9: Auxilium_40
10: MidnightRain_44
11: Anekin_39
12: AbbyDaisy_37
13: Persistence_36
14: Vopal_45
15: Judy_38
16: ChuckDuck_38
17: Pigu_31
18: Bauer_37
19: Zucker_33
20: JanetJ_49
21: PrairieDogTown_76
22: EvenBluerMoon_58
23: CocoCinnamon_57
24: Aoka_51
25: Pitbull_73
26: MrSmee_29
27: Whack_71
28: Whack_72
29: Kromp_73

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 200393 Report

This analysis was run 01/18/25 on database version 583.

Pham number 200393 has 44 members, 11 are drafts.

Phages represented in each track:
• Track 1 : Mordred_79, JaNo_78
• Track 2 : RosiePosie_79, Linus_79, EdgarPoe_78, Scavito_80, Chipper1996_800, Kabreeze_79, PrincessTrina_80, Tophat_80, Chocolat_79, HumptyDumpty_79, Chubster_80
• Track 3 : Lymara_75
• Track 4 : Colucci_81
• Track 5 : ArV1_066
• Track 6 : ArV1_065
• Track 7 : Sakai_42, Gorpy_43, YoungHarleezy_42, Aikyam_39, MaterMagnus_42
• Track 8 : Isolde_43
• Track 9 : Auxilium_40
• Track 10 : MidnightRain_44
• Track 11 : Anekin_39
• Track 12 : AbbyDaisy_37
• Track 13 : Persistence_36
• Track 14 : Vopal_45
• Track 15 : Judy_38
• Track 16 : ChuckDuck_38
• Track 17 : Pigu_31
• Track 18 : Bauer_37
• Track 19 : Zucker_33
• Track 20 : JanetJ_49
• Track 21 : PrairieDogTown_76
• Track 22 : EvenBluerMoon_58
• Track 23 : CocoCinnamon_57
• Track 24 : Aoka_51
• Track 25 : Pitbull_73
• Track 26 : MrSmee_29
• Track 27 : Whack_71
• Track 28 : Whack_72
• Track 29 : Kromp_73

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

The start number called the most often in the published annotations is 29, it was called in 13 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ArV1_065, Chipper1996_800, Chocolat_79, Chubster_80, CocoCinnamon_57, Colucci_81, EdgarPoe_78, HumptyDumpty_79, Kabreeze_79, Linus_79, Lymara_75, PrincessTrina_80, RosiePosie_79, Scavito_80, Tophat_80,

Genes that have the "Most Annotated" start but do not call it:
• JaNo_78, Mordred_79,

Genes that do not have the "Most Annotated" start:
• AbbyDaisy_37, Aikyam_39, Anekin_39, Aoka_51, ArV1_066, Auxilium_40, Bauer_37, ChuckDuck_38, EvenBluerMoon_58, Gorpy_43, Isolde_43, JanetJ_49, Judy_38, Kromp_73, MaterMagnus_42, MidnightRain_44, MrSmee_29, Persistence_36, Pigu_31, Pitbull_73, PrairieDogTown_76, Sakai_42, Vopal_45, Whack_71, Whack_72, YoungHarleezy_42, Zucker_33,

**Summary by start number:**

Start 5:
• Found in 4 of 44 ( 9.1% ) of genes in pham
• Manual Annotations of this start: 2 of 33
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Aoka_51 (FO), JanetJ_49 (FO),

Start 9:
• Found in 3 of 44 ( 6.8% ) of genes in pham
• No Manual Annotations of this start.
• Called 66.7% of time when present
• Phage (with cluster) where this start called: EvenBluerMoon_58 (FO), PrairieDogTown_76 (FO),

Start 16:
• Found in 1 of 44 ( 2.3% ) of genes in pham
• Manual Annotations of this start: 1 of 33
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Anekin_39 (AY),

Start 20:
• Found in 1 of 44 ( 2.3% ) of genes in pham
• Manual Annotations of this start: 1 of 33
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kromp_73 (singleton),

Start 24:
• Found in 1 of 44 ( 2.3% ) of genes in pham
• Manual Annotations of this start: 1 of 33
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MidnightRain_44 (AY),

Start 27:
• Found in 15 of 44 ( 34.1% ) of genes in pham

• Manual Annotations of this start: 2 of 33
• Called 13.3% of time when present
• Phage (with cluster) where this start called: JaNo_78 (AR), Mordred_79 (AR),

Start 28:
• Found in 1 of 44 ( 2.3% ) of genes in pham
• Manual Annotations of this start: 1 of 33
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Whack_71 (singleton),

Start 29:
• Found in 17 of 44 ( 38.6% ) of genes in pham
• Manual Annotations of this start: 13 of 33
• Called 88.2% of time when present
• Phage (with cluster) where this start called: ArV1_065 (AR), Chipper1996_800 (AR), Chocolat_79 (AR), Chubster_80 (AR), CocoCinnamon_57 (FO), Colucci_81 (AR), EdgarPoe_78 (AR), HumptyDumpty_79 (AR), Kabreeze_79 (AR), Linus_79 (AR), Lymara_75 (AR), PrincessTrina_80 (AR), RosiePosie_79 (AR), Scavito_80 (AR), Tophat_80 (AR),

Start 30:
• Found in 2 of 44 ( 4.5% ) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: ArV1_066 (AR),

Start 32:
• Found in 13 of 44 ( 29.5% ) of genes in pham
• Manual Annotations of this start: 9 of 33
• Called 92.3% of time when present
• Phage (with cluster) where this start called: AbbyDaisy_37 (AY), Aikyam_39 (AY), Auxilium_40 (AY), Bauer_37 (FN), ChuckDuck_38 (FA), Gorpy_43 (AY), Isolde_43 (AY), Judy_38 (FA), MaterMagnus_42 (AY), Persistence_36 (AY), Sakai_42 (AY), YoungHarleezy_42 (AY),

Start 33:
• Found in 1 of 44 ( 2.3% ) of genes in pham
• Manual Annotations of this start: 1 of 33
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Zucker_33 (FN),

Start 34:
• Found in 2 of 44 ( 4.5% ) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Vopal_45 (AY),

Start 35:
• Found in 5 of 44 ( 11.4% ) of genes in pham
• Manual Annotations of this start: 2 of 33
• Called 80.0% of time when present
• Phage (with cluster) where this start called: MrSmee_29 (FQ), Pigu_31 (FB), Pitbull_73 (FQ), Whack_72 (singleton),

**Summary by clusters:**

There are 8 clusters represented in this pham: FQ, singleton, FA, FB, AR, AY, FN, FO,

Info for manual annotations of cluster AR:
•Start number 27 was manually annotated 2 times for cluster AR.
•Start number 29 was manually annotated 13 times for cluster AR.

Info for manual annotations of cluster AY:
•Start number 16 was manually annotated 1 time for cluster AY.
•Start number 24 was manually annotated 1 time for cluster AY.
•Start number 32 was manually annotated 6 times for cluster AY.

Info for manual annotations of cluster FA:
•Start number 32 was manually annotated 2 times for cluster FA.

Info for manual annotations of cluster FN:
•Start number 32 was manually annotated 1 time for cluster FN.
•Start number 33 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster FO:
•Start number 5 was manually annotated 2 times for cluster FO.

Info for manual annotations of cluster FQ:
•Start number 35 was manually annotated 1 time for cluster FQ.

***Gene Information:***

Gene: AbbyDaisy_37 Start: 27733, Stop: 27410, Start Num: 32
Candidate Starts for AbbyDaisy_37:
(Start: 32 @27733 has 9 MA's), (36, 27721), (43, 27661), (77, 27529),

Gene: Aikyam_39 Start: 26132, Stop: 25803, Start Num: 32
Candidate Starts for Aikyam_39:
(Start: 32 @26132 has 9 MA's), (40, 26069), (41, 26066), (65, 25937), (75, 25916), (96, 25865),

Gene: Anekin_39 Start: 27918, Stop: 27538, Start Num: 16
Candidate Starts for Anekin_39:
(6, 28068), (Start: 16 @27918 has 1 MA's), (17, 27909), (31, 27852), (89, 27627), (94, 27615),

Gene: Aoka_51 Start: 34831, Stop: 35385, Start Num: 5
Candidate Starts for Aoka_51:
(1, 34159), (2, 34180), (4, 34789), (Start: 5 @34831 has 2 MA's), (8, 34879), (21, 34945), (40, 35068), (74, 35242), (96, 35317),

Gene: ArV1_066 Start: 50683, Stop: 51042, Start Num: 30
Candidate Starts for ArV1_066:

(30, 50683), (38, 50716), (52, 50803), (54, 50809), (61, 50854), (64, 50878), (79, 50929), (96, 50989), (97, 50992),

Gene: ArV1_065 Start: 50268, Stop: 50690, Start Num: 29
Candidate Starts for ArV1_065:
(Start: 27 @50262 has 2 MA's), (Start: 29 @50268 has 13 MA's), (36, 50283), (57, 50412), (64, 50472), (73, 50505), (95, 50577), (101, 50604), (103, 50622),

Gene: Auxilium_40 Start: 25834, Stop: 25505, Start Num: 32
Candidate Starts for Auxilium_40:
(Start: 32 @25834 has 9 MA's), (50, 25726), (65, 25639), (75, 25618), (96, 25567),

Gene: Bauer_37 Start: 26477, Stop: 26764, Start Num: 32
Candidate Starts for Bauer_37:
(18, 26429), (21, 26435), (Start: 32 @26477 has 9 MA's), (36, 26489), (84, 26654), (90, 26681), (93, 26690), (97, 26702), (100, 26720),

Gene: Chipper1996_800 Start: 51561, Stop: 51953, Start Num: 29
Candidate Starts for Chipper1996_800:
(Start: 27 @51555 has 2 MA's), (Start: 29 @51561 has 13 MA's), (42, 51636), (44, 51639), (57, 51711), (64, 51771), (72, 51801), (83, 51822), (84, 51825), (90, 51849),

Gene: Chocolat_79 Start: 51268, Stop: 51660, Start Num: 29
Candidate Starts for Chocolat_79:
(Start: 27 @51262 has 2 MA's), (Start: 29 @51268 has 13 MA's), (42, 51343), (44, 51346), (57, 51418), (64, 51478), (72, 51508), (83, 51529), (84, 51532), (90, 51556),

Gene: Chubster_80 Start: 51962, Stop: 52354, Start Num: 29
Candidate Starts for Chubster_80:
(Start: 27 @51956 has 2 MA's), (Start: 29 @51962 has 13 MA's), (42, 52037), (44, 52040), (57, 52112), (64, 52172), (72, 52202), (83, 52223), (84, 52226), (90, 52250),

Gene: ChuckDuck_38 Start: 26145, Stop: 26492, Start Num: 32
Candidate Starts for ChuckDuck_38:
(9, 26001), (11, 26004), (Start: 32 @26145 has 9 MA's), (84, 26379), (90, 26406),

Gene: CocoCinnamon_57 Start: 35240, Stop: 35584, Start Num: 29
Candidate Starts for CocoCinnamon_57:
(23, 35210), (25, 35219), (26, 35234), (Start: 29 @35240 has 13 MA's), (30, 35243), (34, 35252), (39, 35300), (51, 35366), (56, 35387), (85, 35492),

Gene: Colucci_81 Start: 51910, Stop: 52302, Start Num: 29
Candidate Starts for Colucci_81:
(Start: 29 @51910 has 13 MA's), (57, 52060), (64, 52120), (72, 52150), (84, 52174), (90, 52198), (106, 52285),

Gene: EdgarPoe_78 Start: 51425, Stop: 51817, Start Num: 29
Candidate Starts for EdgarPoe_78:
(Start: 27 @51419 has 2 MA's), (Start: 29 @51425 has 13 MA's), (42, 51500), (44, 51503), (57, 51575), (64, 51635), (72, 51665), (83, 51686), (84, 51689), (90, 51713),

Gene: EvenBluerMoon_58 Start: 34293, Stop: 34832, Start Num: 9
Candidate Starts for EvenBluerMoon_58:

(4, 34149), (Start: 5 @34191 has 2 MA's), (9, 34293), (21, 34392), (40, 34515), (74, 34689), (96, 34764),

Gene: Gorpy_43 Start: 29526, Stop: 29197, Start Num: 32
Candidate Starts for Gorpy_43:
(Start: 32 @29526 has 9 MA's), (40, 29463), (41, 29460), (65, 29331), (75, 29310), (96, 29259),

Gene: HumptyDumpty_79 Start: 51228, Stop: 51620, Start Num: 29
Candidate Starts for HumptyDumpty_79:
(Start: 27 @51222 has 2 MA's), (Start: 29 @51228 has 13 MA's), (42, 51303), (44, 51306), (57, 51378), (64, 51438), (72, 51468), (83, 51489), (84, 51492), (90, 51516),

Gene: Isolde_43 Start: 28418, Stop: 28056, Start Num: 32
Candidate Starts for Isolde_43:
(Start: 32 @28418 has 9 MA's), (50, 28310), (66, 28220), (81, 28169), (86, 28151), (92, 28133),

Gene: JaNo_78 Start: 51193, Stop: 51591, Start Num: 27
Candidate Starts for JaNo_78:
(Start: 27 @51193 has 2 MA's), (Start: 29 @51199 has 13 MA's), (42, 51274), (44, 51277), (57, 51349), (64, 51409), (72, 51439), (83, 51460), (84, 51463), (90, 51487),

Gene: JanetJ_49 Start: 35354, Stop: 35842, Start Num: 5
Candidate Starts for JanetJ_49:
(4, 35312), (Start: 5 @35354 has 2 MA's), (40, 35525), (74, 35699), (96, 35774),

Gene: Judy_38 Start: 26628, Stop: 26987, Start Num: 32
Candidate Starts for Judy_38:
(Start: 32 @26628 has 9 MA's), (36, 26640),

Gene: Kabreeze_79 Start: 51285, Stop: 51677, Start Num: 29
Candidate Starts for Kabreeze_79:
(Start: 27 @51279 has 2 MA's), (Start: 29 @51285 has 13 MA's), (42, 51360), (44, 51363), (57, 51435), (64, 51495), (72, 51525), (83, 51546), (84, 51549), (90, 51573),

Gene: Kromp_73 Start: 47753, Stop: 47349, Start Num: 20
Candidate Starts for Kromp_73:
(Start: 20 @47753 has 1 MA's), (22, 47741), (46, 47612), (49, 47588), (56, 47558), (62, 47525), (69, 47495), (78, 47468), (82, 47459), (96, 47414),

Gene: Linus_79 Start: 51733, Stop: 52125, Start Num: 29
Candidate Starts for Linus_79:
(Start: 27 @51727 has 2 MA's), (Start: 29 @51733 has 13 MA's), (42, 51808), (44, 51811), (57, 51883), (64, 51943), (72, 51973), (83, 51994), (84, 51997), (90, 52021),

Gene: Lymara_75 Start: 50005, Stop: 50436, Start Num: 29
Candidate Starts for Lymara_75:
(Start: 27 @49999 has 2 MA's), (Start: 29 @50005 has 13 MA's), (36, 50020), (52, 50128), (54, 50134), (61, 50179), (63, 50197), (65, 50206), (68, 50215), (76, 50242), (99, 50323), (108, 50425),

Gene: MaterMagnus_42 Start: 28304, Stop: 27975, Start Num: 32
Candidate Starts for MaterMagnus_42:
(Start: 32 @28304 has 9 MA's), (40, 28241), (41, 28238), (65, 28109), (75, 28088), (96, 28037),

Gene: MidnightRain_44 Start: 29060, Stop: 28755, Start Num: 24
Candidate Starts for MidnightRain_44:
(Start: 24 @29060 has 1 MA's), (Start: 32 @29042 has 9 MA's), (47, 28976), (66, 28919), (81, 28868), (86, 28850), (92, 28832),

Gene: Mordred_79 Start: 51318, Stop: 51716, Start Num: 27
Candidate Starts for Mordred_79:
(Start: 27 @51318 has 2 MA's), (Start: 29 @51324 has 13 MA's), (42, 51399), (44, 51402), (57, 51474), (64, 51534), (72, 51564), (83, 51585), (84, 51588), (90, 51612),

Gene: MrSmee_29 Start: 23244, Stop: 22936, Start Num: 35
Candidate Starts for MrSmee_29:
(12, 23382), (13, 23373), (14, 23367), (15, 23334), (19, 23307), (Start: 35 @23244 has 2 MA's), (48, 23172), (98, 22995),

Gene: Persistence_36 Start: 26553, Stop: 26230, Start Num: 32
Candidate Starts for Persistence_36:
(Start: 32 @26553 has 9 MA's), (36, 26541), (40, 26490), (43, 26481), (56, 26415), (77, 26349),

Gene: Pigu_31 Start: 22735, Stop: 23076, Start Num: 35
Candidate Starts for Pigu_31:
(Start: 35 @22735 has 2 MA's), (52, 22849), (59, 22879),

Gene: Pitbull_73 Start: 38580, Stop: 38888, Start Num: 35
Candidate Starts for Pitbull_73:
(Start: 35 @38580 has 2 MA's), (37, 38598), (45, 38640), (61, 38694), (68, 38730), (74, 38754), (92, 38805), (105, 38883),

Gene: PrairieDogTown_76 Start: 34295, Stop: 34834, Start Num: 9
Candidate Starts for PrairieDogTown_76:
(3, 33650), (4, 34151), (Start: 5 @34193 has 2 MA's), (9, 34295), (21, 34394), (40, 34517), (74, 34691), (96, 34766),

Gene: PrincessTrina_80 Start: 51629, Stop: 52021, Start Num: 29
Candidate Starts for PrincessTrina_80:
(Start: 27 @51623 has 2 MA's), (Start: 29 @51629 has 13 MA's), (42, 51704), (44, 51707), (57, 51779), (64, 51839), (72, 51869), (83, 51890), (84, 51893), (90, 51917),

Gene: RosiePosie_79 Start: 51413, Stop: 51805, Start Num: 29
Candidate Starts for RosiePosie_79:
(Start: 27 @51407 has 2 MA's), (Start: 29 @51413 has 13 MA's), (42, 51488), (44, 51491), (57, 51563), (64, 51623), (72, 51653), (83, 51674), (84, 51677), (90, 51701),

Gene: Sakai_42 Start: 28237, Stop: 27908, Start Num: 32
Candidate Starts for Sakai_42:
(Start: 32 @28237 has 9 MA's), (40, 28174), (41, 28171), (65, 28042), (75, 28021), (96, 27970),

Gene: Scavito_80 Start: 51373, Stop: 51765, Start Num: 29
Candidate Starts for Scavito_80:
(Start: 27 @51367 has 2 MA's), (Start: 29 @51373 has 13 MA's), (42, 51448), (44, 51451), (57, 51523), (64, 51583), (72, 51613), (83, 51634), (84, 51637), (90, 51661),

Gene: Tophat_80 Start: 51562, Stop: 51954, Start Num: 29

Candidate Starts for Tophat_80:
(Start: 27 @51556 has 2 MA's), (Start: 29 @51562 has 13 MA's), (42, 51637), (44, 51640), (57, 51712), (64, 51772), (72, 51802), (83, 51823), (84, 51826), (90, 51850),

Gene: Vopal_45 Start: 31144, Stop: 30827, Start Num: 34
Candidate Starts for Vopal_45:
(7, 31315), (10, 31300), (22, 31195), (34, 31144), (50, 31045), (55, 31021), (71, 30937), (86, 30910),

Gene: Whack_71 Start: 46738, Stop: 47166, Start Num: 28
Candidate Starts for Whack_71:
(Start: 28 @46738 has 1 MA's), (Start: 35 @46756 has 2 MA's), (36, 46765), (39, 46804), (52, 46876), (74, 46987), (80, 47005), (89, 47041), (91, 47044), (102, 47098),

Gene: Whack_72 Start: 47171, Stop: 47581, Start Num: 35
Candidate Starts for Whack_72:
(Start: 35 @47171 has 2 MA's), (36, 47180), (53, 47300), (58, 47321), (60, 47327), (70, 47396), (104, 47531), (107, 47576),

Gene: YoungHarleezy_42 Start: 28307, Stop: 27978, Start Num: 32
Candidate Starts for YoungHarleezy_42:
(Start: 32 @28307 has 9 MA's), (40, 28244), (41, 28241), (65, 28112), (75, 28091), (96, 28040),

Gene: Zucker_33 Start: 26898, Stop: 26590, Start Num: 33
Candidate Starts for Zucker_33:
(Start: 33 @26898 has 1 MA's), (45, 26835), (67, 26748), (87, 26688), (88, 26685), (89, 26676),