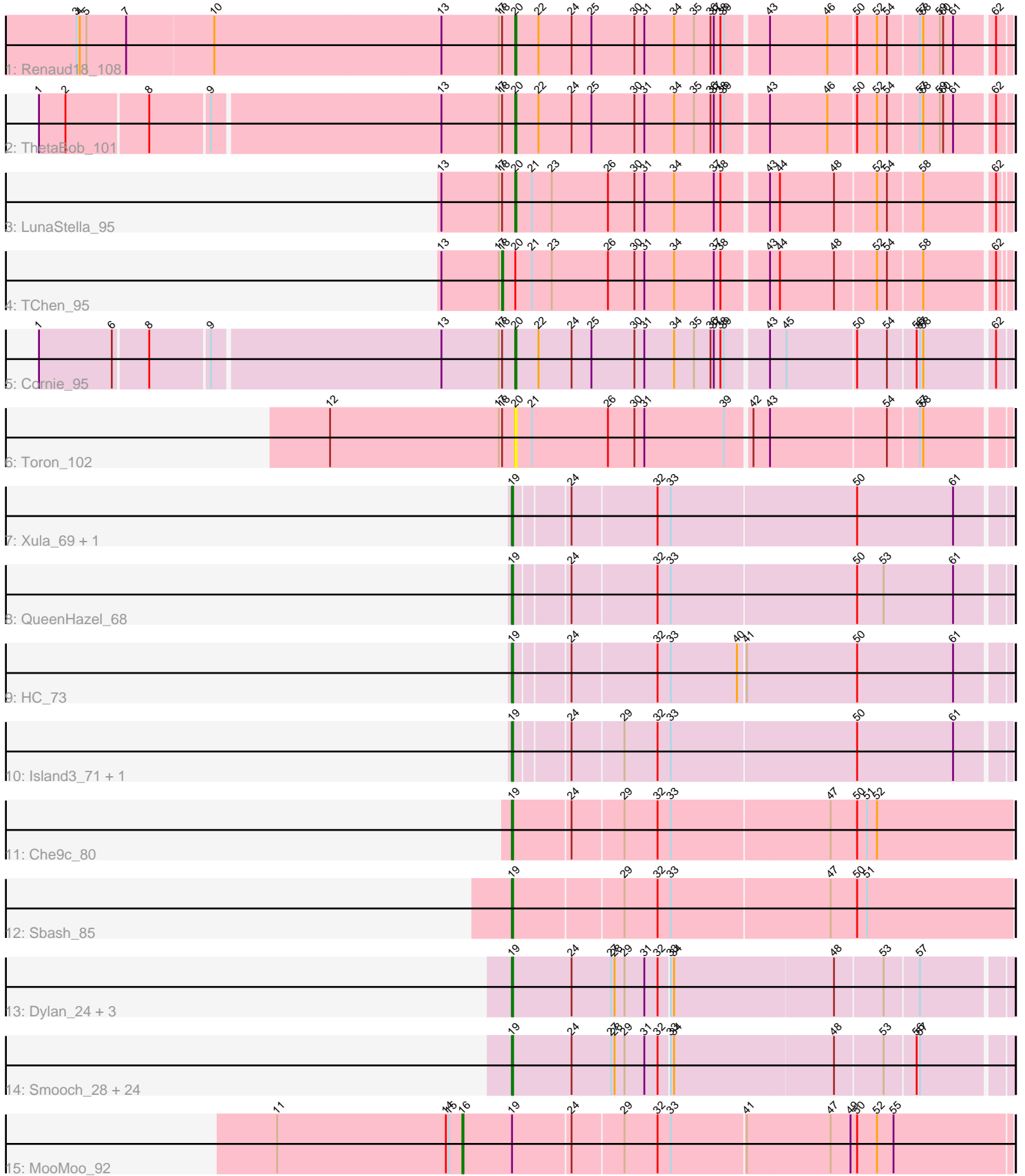


Pham 196639



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 196639 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196639 has 44 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Renaud18\_108
- Track 2 : ThetaBob\_101
- Track 3 : LunaStella\_95
- Track 4 : TChen\_95
- Track 5 : Cornie\_95
- Track 6 : Toron\_102
- Track 7 : Xula\_69, Babsiella\_73
- Track 8 : QueenHazel\_68
- Track 9 : HC\_73
- Track 10 : Island3\_71, Brujita\_69
- Track 11 : Che9c\_80
- Track 12 : Sbash\_85
- Track 13 : Dylan\_24, Zakhe101\_25, Corndog\_27, Bora\_23
- Track 14 : Smooch\_28, Idergollasper\_24, Vorrrps\_25, Familton\_25, Ashwin\_26, Mori\_25, Ryadel\_27, Wildflower\_25, FoulBall\_24, Alkhayr\_23, MadKillah\_26, TelAviv\_22, SchoolBus\_24, Vagabond\_23, Winget\_25, Shida\_25, Catdawg\_24, Murai\_25, JangDynasty\_24, Krili\_25, YungJamal\_27, Firecracker\_25, Schuy\_26, NiebruSaylor\_25, Blessica\_25
- Track 15 : MooMoo\_92

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

The start number called the most often in the published annotations is 19, it was called in 35 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alkhayr\_23, Ashwin\_26, Babsiella\_73, Blessica\_25, Bora\_23, Brujita\_69, Catdawg\_24, Che9c\_80, Corndog\_27, Dylan\_24, Familton\_25, Firecracker\_25, FoulBall\_24, HC\_73, Idergollasper\_24, Island3\_71, JangDynasty\_24, Krili\_25, MadKillah\_26, Mori\_25, Murai\_25, NiebruSaylor\_25, QueenHazel\_68, Ryadel\_27, Sbash\_85, SchoolBus\_24, Schuy\_26, Shida\_25, Smooch\_28, TelAviv\_22, Vagabond\_23, Vorrrps\_25, Wildflower\_25, Winget\_25, Xula\_69, YungJamal\_27, Zakhe101\_25,

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

- MooMoo\_92,

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

- Cornie\_95, LunaStella\_95, Renaud18\_108, TChen\_95, ThetaBob\_101, Toron\_102,

### Summary by start number:

Start 16:

- Found in 1 of 44 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MooMoo\_92 (singleton),

Start 18:

- Found in 6 of 44 ( 13.6% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 16.7% of time when present
- Phage (with cluster) where this start called: TChen\_95 (F4),

Start 19:

- Found in 38 of 44 ( 86.4% ) of genes in pham
- Manual Annotations of this start: 35 of 41
- Called 97.4% of time when present
- Phage (with cluster) where this start called: Alkhayr\_23 (O), Ashwin\_26 (O), Babsiella\_73 (I1), Blessica\_25 (O), Bora\_23 (O), Brujita\_69 (I1), Catdawg\_24 (O), Che9c\_80 (I2), Corndog\_27 (O), Dylan\_24 (O), Familton\_25 (O), Firecracker\_25 (O), FoulBall\_24 (O), HC\_73 (I1), Idergollasper\_24 (O), Island3\_71 (I1), JangDynasty\_24 (O), Kriili\_25 (O), MadKillah\_26 (O), Mori\_25 (O), Murai\_25 (O), NiebruSaylor\_25 (O), QueenHazel\_68 (I1), Ryadel\_27 (O), Sbash\_85 (I2), SchoolBus\_24 (O), Schuy\_26 (O), Shida\_25 (O), Smooch\_28 (O), TelAviv\_22 (O), Vagabond\_23 (O), Vorrrps\_25 (O), Wildflower\_25 (O), Winget\_25 (O), Xula\_69 (I1), YungJamal\_27 (O), Zakhe101\_25 (O),

Start 20:

- Found in 6 of 44 ( 13.6% ) of genes in pham
- Manual Annotations of this start: 4 of 41
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Cornie\_95 (F5), LunaStella\_95 (F4), Renaud18\_108 (F4), ThetaBob\_101 (F4), Toron\_102 (F6),

### Summary by clusters:

There are 7 clusters represented in this pham: singleton, F4, F5, F6, I1, I2, O,

Info for manual annotations of cluster F4:

- Start number 18 was manually annotated 1 time for cluster F4.
- Start number 20 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster F5:

- Start number 20 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster I1:

•Start number 19 was manually annotated 6 times for cluster I1.

Info for manual annotations of cluster I2:

•Start number 19 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster O:

•Start number 19 was manually annotated 27 times for cluster O.

### **Gene Information:**

Gene: Alkhayr\_23 Start: 11416, Stop: 11850, Start Num: 19

Candidate Starts for Alkhayr\_23:

(Start: 19 @11416 has 35 MA's), (24, 11470), (27, 11506), (28, 11509), (29, 11518), (31, 11536), (32, 11548), (33, 11557), (34, 11560), (48, 11701), (53, 11743), (56, 11770), (57, 11773),

Gene: Ashwin\_26 Start: 11636, Stop: 12070, Start Num: 19

Candidate Starts for Ashwin\_26:

(Start: 19 @11636 has 35 MA's), (24, 11690), (27, 11726), (28, 11729), (29, 11738), (31, 11756), (32, 11768), (33, 11777), (34, 11780), (48, 11921), (53, 11963), (56, 11990), (57, 11993),

Gene: Babsiella\_73 Start: 45112, Stop: 45540, Start Num: 19

Candidate Starts for Babsiella\_73:

(Start: 19 @45112 has 35 MA's), (24, 45157), (32, 45232), (33, 45244), (50, 45409), (61, 45496),

Gene: Blessica\_25 Start: 11439, Stop: 11873, Start Num: 19

Candidate Starts for Blessica\_25:

(Start: 19 @11439 has 35 MA's), (24, 11493), (27, 11529), (28, 11532), (29, 11541), (31, 11559), (32, 11571), (33, 11580), (34, 11583), (48, 11724), (53, 11766), (56, 11793), (57, 11796),

Gene: Bora\_23 Start: 11089, Stop: 11523, Start Num: 19

Candidate Starts for Bora\_23:

(Start: 19 @11089 has 35 MA's), (24, 11143), (27, 11179), (28, 11182), (29, 11191), (31, 11209), (32, 11221), (33, 11230), (34, 11233), (48, 11374), (53, 11416), (57, 11446),

Gene: Brujita\_69 Start: 44086, Stop: 44514, Start Num: 19

Candidate Starts for Brujita\_69:

(Start: 19 @44086 has 35 MA's), (24, 44131), (29, 44176), (32, 44206), (33, 44218), (50, 44383), (61, 44470),

Gene: Catdawg\_24 Start: 11045, Stop: 11479, Start Num: 19

Candidate Starts for Catdawg\_24:

(Start: 19 @11045 has 35 MA's), (24, 11099), (27, 11135), (28, 11138), (29, 11147), (31, 11165), (32, 11177), (33, 11186), (34, 11189), (48, 11330), (53, 11372), (56, 11399), (57, 11402),

Gene: Che9c\_80 Start: 53858, Stop: 54301, Start Num: 19

Candidate Starts for Che9c\_80:

(Start: 19 @53858 has 35 MA's), (24, 53909), (29, 53954), (32, 53984), (33, 53996), (47, 54137), (50, 54161), (51, 54170), (52, 54179),

Gene: Corndog\_27 Start: 11715, Stop: 12149, Start Num: 19

Candidate Starts for Corndog\_27:

(Start: 19 @11715 has 35 MA's), (24, 11769), (27, 11805), (28, 11808), (29, 11817), (31, 11835), (32, 11847), (33, 11856), (34, 11859), (48, 12000), (53, 12042), (57, 12072),

Gene: Cornie\_95 Start: 52934, Stop: 53362, Start Num: 20

Candidate Starts for Cornie\_95:

(1, 52520), (6, 52586), (8, 52616), (9, 52667), (13, 52868), (17, 52919), (Start: 18 @52922 has 1 MA's), (Start: 20 @52934 has 4 MA's), (22, 52955), (24, 52985), (25, 53003), (30, 53042), (31, 53051), (34, 53078), (35, 53096), (36, 53111), (37, 53114), (38, 53120), (39, 53123), (43, 53159), (45, 53174), (50, 53234), (54, 53261), (56, 53285), (57, 53288), (58, 53291), (62, 53351),

Gene: Dylan\_24 Start: 11441, Stop: 11875, Start Num: 19

Candidate Starts for Dylan\_24:

(Start: 19 @11441 has 35 MA's), (24, 11495), (27, 11531), (28, 11534), (29, 11543), (31, 11561), (32, 11573), (33, 11582), (34, 11585), (48, 11726), (53, 11768), (57, 11798),

Gene: Familton\_25 Start: 11046, Stop: 11480, Start Num: 19

Candidate Starts for Familton\_25:

(Start: 19 @11046 has 35 MA's), (24, 11100), (27, 11136), (28, 11139), (29, 11148), (31, 11166), (32, 11178), (33, 11187), (34, 11190), (48, 11331), (53, 11373), (56, 11400), (57, 11403),

Gene: Firecracker\_25 Start: 11339, Stop: 11773, Start Num: 19

Candidate Starts for Firecracker\_25:

(Start: 19 @11339 has 35 MA's), (24, 11393), (27, 11429), (28, 11432), (29, 11441), (31, 11459), (32, 11471), (33, 11480), (34, 11483), (48, 11624), (53, 11666), (56, 11693), (57, 11696),

Gene: FoulBall\_24 Start: 11046, Stop: 11480, Start Num: 19

Candidate Starts for FoulBall\_24:

(Start: 19 @11046 has 35 MA's), (24, 11100), (27, 11136), (28, 11139), (29, 11148), (31, 11166), (32, 11178), (33, 11187), (34, 11190), (48, 11331), (53, 11373), (56, 11400), (57, 11403),

Gene: HC\_73 Start: 43335, Stop: 43763, Start Num: 19

Candidate Starts for HC\_73:

(Start: 19 @43335 has 35 MA's), (24, 43380), (32, 43455), (33, 43467), (40, 43527), (41, 43533), (50, 43632), (61, 43719),

Gene: Idergollasper\_24 Start: 11046, Stop: 11480, Start Num: 19

Candidate Starts for Idergollasper\_24:

(Start: 19 @11046 has 35 MA's), (24, 11100), (27, 11136), (28, 11139), (29, 11148), (31, 11166), (32, 11178), (33, 11187), (34, 11190), (48, 11331), (53, 11373), (56, 11400), (57, 11403),

Gene: Island3\_71 Start: 44316, Stop: 44744, Start Num: 19

Candidate Starts for Island3\_71:

(Start: 19 @44316 has 35 MA's), (24, 44361), (29, 44406), (32, 44436), (33, 44448), (50, 44613), (61, 44700),

Gene: JangDynasty\_24 Start: 11135, Stop: 11569, Start Num: 19

Candidate Starts for JangDynasty\_24:

(Start: 19 @11135 has 35 MA's), (24, 11189), (27, 11225), (28, 11228), (29, 11237), (31, 11255), (32, 11267), (33, 11276), (34, 11279), (48, 11420), (53, 11462), (56, 11489), (57, 11492),

Gene: Krili\_25 Start: 11405, Stop: 11839, Start Num: 19

Candidate Starts for Krili\_25:

(Start: 19 @11405 has 35 MA's), (24, 11459), (27, 11495), (28, 11498), (29, 11507), (31, 11525), (32, 11537), (33, 11546), (34, 11549), (48, 11690), (53, 11732), (56, 11759), (57, 11762),

Gene: LunaStella\_95 Start: 51843, Stop: 52268, Start Num: 20

Candidate Starts for LunaStella\_95:

(13, 51777), (17, 51828), (Start: 18 @51831 has 1 MA's), (Start: 20 @51843 has 4 MA's), (21, 51858), (23, 51876), (26, 51927), (30, 51951), (31, 51960), (34, 51987), (37, 52023), (38, 52029), (43, 52068), (44, 52077), (48, 52125), (52, 52161), (54, 52170), (58, 52200), (62, 52260),

Gene: MadKillah\_26 Start: 11438, Stop: 11872, Start Num: 19

Candidate Starts for MadKillah\_26:

(Start: 19 @11438 has 35 MA's), (24, 11492), (27, 11528), (28, 11531), (29, 11540), (31, 11558), (32, 11570), (33, 11579), (34, 11582), (48, 11723), (53, 11765), (56, 11792), (57, 11795),

Gene: MooMoo\_92 Start: 51379, Stop: 51864, Start Num: 16

Candidate Starts for MooMoo\_92:

(11, 51211), (14, 51364), (15, 51367), (Start: 16 @51379 has 1 MA's), (Start: 19 @51424 has 35 MA's), (24, 51475), (29, 51520), (32, 51550), (33, 51562), (41, 51628), (47, 51703), (49, 51721), (50, 51727), (52, 51745), (55, 51760),

Gene: Mori\_25 Start: 11276, Stop: 11710, Start Num: 19

Candidate Starts for Mori\_25:

(Start: 19 @11276 has 35 MA's), (24, 11330), (27, 11366), (28, 11369), (29, 11378), (31, 11396), (32, 11408), (33, 11417), (34, 11420), (48, 11561), (53, 11603), (56, 11630), (57, 11633),

Gene: Murai\_25 Start: 11277, Stop: 11711, Start Num: 19

Candidate Starts for Murai\_25:

(Start: 19 @11277 has 35 MA's), (24, 11331), (27, 11367), (28, 11370), (29, 11379), (31, 11397), (32, 11409), (33, 11418), (34, 11421), (48, 11562), (53, 11604), (56, 11631), (57, 11634),

Gene: NiebruSaylor\_25 Start: 11277, Stop: 11711, Start Num: 19

Candidate Starts for NiebruSaylor\_25:

(Start: 19 @11277 has 35 MA's), (24, 11331), (27, 11367), (28, 11370), (29, 11379), (31, 11397), (32, 11409), (33, 11418), (34, 11421), (48, 11562), (53, 11604), (56, 11631), (57, 11634),

Gene: QueenHazel\_68 Start: 44336, Stop: 44764, Start Num: 19

Candidate Starts for QueenHazel\_68:

(Start: 19 @44336 has 35 MA's), (24, 44381), (32, 44456), (33, 44468), (50, 44633), (53, 44657), (61, 44720),

Gene: Renaud18\_108 Start: 54756, Stop: 55184, Start Num: 20

Candidate Starts for Renaud18\_108:

(3, 54363), (4, 54366), (5, 54372), (7, 54408), (10, 54486), (13, 54690), (17, 54741), (Start: 18 @54744 has 1 MA's), (Start: 20 @54756 has 4 MA's), (22, 54777), (24, 54807), (25, 54825), (30, 54864), (31, 54873), (34, 54900), (35, 54918), (36, 54933), (37, 54936), (38, 54942), (39, 54945), (43, 54981), (46, 55032), (50, 55056), (52, 55074), (54, 55083), (57, 55110), (58, 55113), (59, 55128), (60, 55131), (61, 55140), (62, 55173),

Gene: Ryadel\_27 Start: 11859, Stop: 12293, Start Num: 19

Candidate Starts for Ryadel\_27:

(Start: 19 @11859 has 35 MA's), (24, 11913), (27, 11949), (28, 11952), (29, 11961), (31, 11979), (32, 11991), (33, 12000), (34, 12003), (48, 12144), (53, 12186), (56, 12213), (57, 12216),

Gene: Sbash\_85 Start: 52628, Stop: 53071, Start Num: 19

Candidate Starts for Sbash\_85:

(Start: 19 @52628 has 35 MA's), (29, 52724), (32, 52754), (33, 52766), (47, 52907), (50, 52931), (51, 52940),

Gene: SchoolBus\_24 Start: 11046, Stop: 11480, Start Num: 19

Candidate Starts for SchoolBus\_24:

(Start: 19 @11046 has 35 MA's), (24, 11100), (27, 11136), (28, 11139), (29, 11148), (31, 11166), (32, 11178), (33, 11187), (34, 11190), (48, 11331), (53, 11373), (56, 11400), (57, 11403),

Gene: Schuy\_26 Start: 11438, Stop: 11872, Start Num: 19

Candidate Starts for Schuy\_26:

(Start: 19 @11438 has 35 MA's), (24, 11492), (27, 11528), (28, 11531), (29, 11540), (31, 11558), (32, 11570), (33, 11579), (34, 11582), (48, 11723), (53, 11765), (56, 11792), (57, 11795),

Gene: Shida\_25 Start: 11343, Stop: 11777, Start Num: 19

Candidate Starts for Shida\_25:

(Start: 19 @11343 has 35 MA's), (24, 11397), (27, 11433), (28, 11436), (29, 11445), (31, 11463), (32, 11475), (33, 11484), (34, 11487), (48, 11628), (53, 11670), (56, 11697), (57, 11700),

Gene: Smooch\_28 Start: 12792, Stop: 13226, Start Num: 19

Candidate Starts for Smooch\_28:

(Start: 19 @12792 has 35 MA's), (24, 12846), (27, 12882), (28, 12885), (29, 12894), (31, 12912), (32, 12924), (33, 12933), (34, 12936), (48, 13077), (53, 13119), (56, 13146), (57, 13149),

Gene: TChen\_95 Start: 53782, Stop: 54219, Start Num: 18

Candidate Starts for TChen\_95:

(13, 53728), (17, 53779), (Start: 18 @53782 has 1 MA's), (Start: 20 @53794 has 4 MA's), (21, 53809), (23, 53827), (26, 53878), (30, 53902), (31, 53911), (34, 53938), (37, 53974), (38, 53980), (43, 54019), (44, 54028), (48, 54076), (52, 54112), (54, 54121), (58, 54151), (62, 54211),

Gene: TelAviv\_22 Start: 11043, Stop: 11477, Start Num: 19

Candidate Starts for TelAviv\_22:

(Start: 19 @11043 has 35 MA's), (24, 11097), (27, 11133), (28, 11136), (29, 11145), (31, 11163), (32, 11175), (33, 11184), (34, 11187), (48, 11328), (53, 11370), (56, 11397), (57, 11400),

Gene: ThetaBob\_101 Start: 52977, Stop: 53405, Start Num: 20

Candidate Starts for ThetaBob\_101:

(1, 52563), (2, 52587), (8, 52659), (9, 52710), (13, 52911), (17, 52962), (Start: 18 @52965 has 1 MA's), (Start: 20 @52977 has 4 MA's), (22, 52998), (24, 53028), (25, 53046), (30, 53085), (31, 53094), (34, 53121), (35, 53139), (36, 53154), (37, 53157), (38, 53163), (39, 53166), (43, 53202), (46, 53253), (50, 53277), (52, 53295), (54, 53304), (57, 53331), (58, 53334), (59, 53349), (60, 53352), (61, 53361), (62, 53394),

Gene: Toron\_102 Start: 55585, Stop: 56013, Start Num: 20

Candidate Starts for Toron\_102:

(12, 55417), (17, 55570), (Start: 18 @55573 has 1 MA's), (Start: 20 @55585 has 4 MA's), (21, 55600), (26, 55669), (30, 55693), (31, 55702), (39, 55774), (42, 55795), (43, 55810), (54, 55912), (57, 55939), (58, 55942),

Gene: Vagabond\_23 Start: 11320, Stop: 11754, Start Num: 19

Candidate Starts for Vagabond\_23:

(Start: 19 @11320 has 35 MA's), (24, 11374), (27, 11410), (28, 11413), (29, 11422), (31, 11440), (32, 11452), (33, 11461), (34, 11464), (48, 11605), (53, 11647), (56, 11674), (57, 11677),

Gene: Vorrps\_25 Start: 11277, Stop: 11711, Start Num: 19

Candidate Starts for Vorrps\_25:

(Start: 19 @11277 has 35 MA's), (24, 11331), (27, 11367), (28, 11370), (29, 11379), (31, 11397), (32, 11409), (33, 11418), (34, 11421), (48, 11562), (53, 11604), (56, 11631), (57, 11634),

Gene: Wildflower\_25 Start: 11300, Stop: 11734, Start Num: 19

Candidate Starts for Wildflower\_25:

(Start: 19 @11300 has 35 MA's), (24, 11354), (27, 11390), (28, 11393), (29, 11402), (31, 11420), (32, 11432), (33, 11441), (34, 11444), (48, 11585), (53, 11627), (56, 11654), (57, 11657),

Gene: Winget\_25 Start: 11319, Stop: 11753, Start Num: 19

Candidate Starts for Winget\_25:

(Start: 19 @11319 has 35 MA's), (24, 11373), (27, 11409), (28, 11412), (29, 11421), (31, 11439), (32, 11451), (33, 11460), (34, 11463), (48, 11604), (53, 11646), (56, 11673), (57, 11676),

Gene: Xula\_69 Start: 44823, Stop: 45251, Start Num: 19

Candidate Starts for Xula\_69:

(Start: 19 @44823 has 35 MA's), (24, 44868), (32, 44943), (33, 44955), (50, 45120), (61, 45207),

Gene: YungJamal\_27 Start: 11595, Stop: 12029, Start Num: 19

Candidate Starts for YungJamal\_27:

(Start: 19 @11595 has 35 MA's), (24, 11649), (27, 11685), (28, 11688), (29, 11697), (31, 11715), (32, 11727), (33, 11736), (34, 11739), (48, 11880), (53, 11922), (56, 11949), (57, 11952),

Gene: Zakhe101\_25 Start: 11445, Stop: 11879, Start Num: 19

Candidate Starts for Zakhe101\_25:

(Start: 19 @11445 has 35 MA's), (24, 11499), (27, 11535), (28, 11538), (29, 11547), (31, 11565), (32, 11577), (33, 11586), (34, 11589), (48, 11730), (53, 11772), (57, 11802),