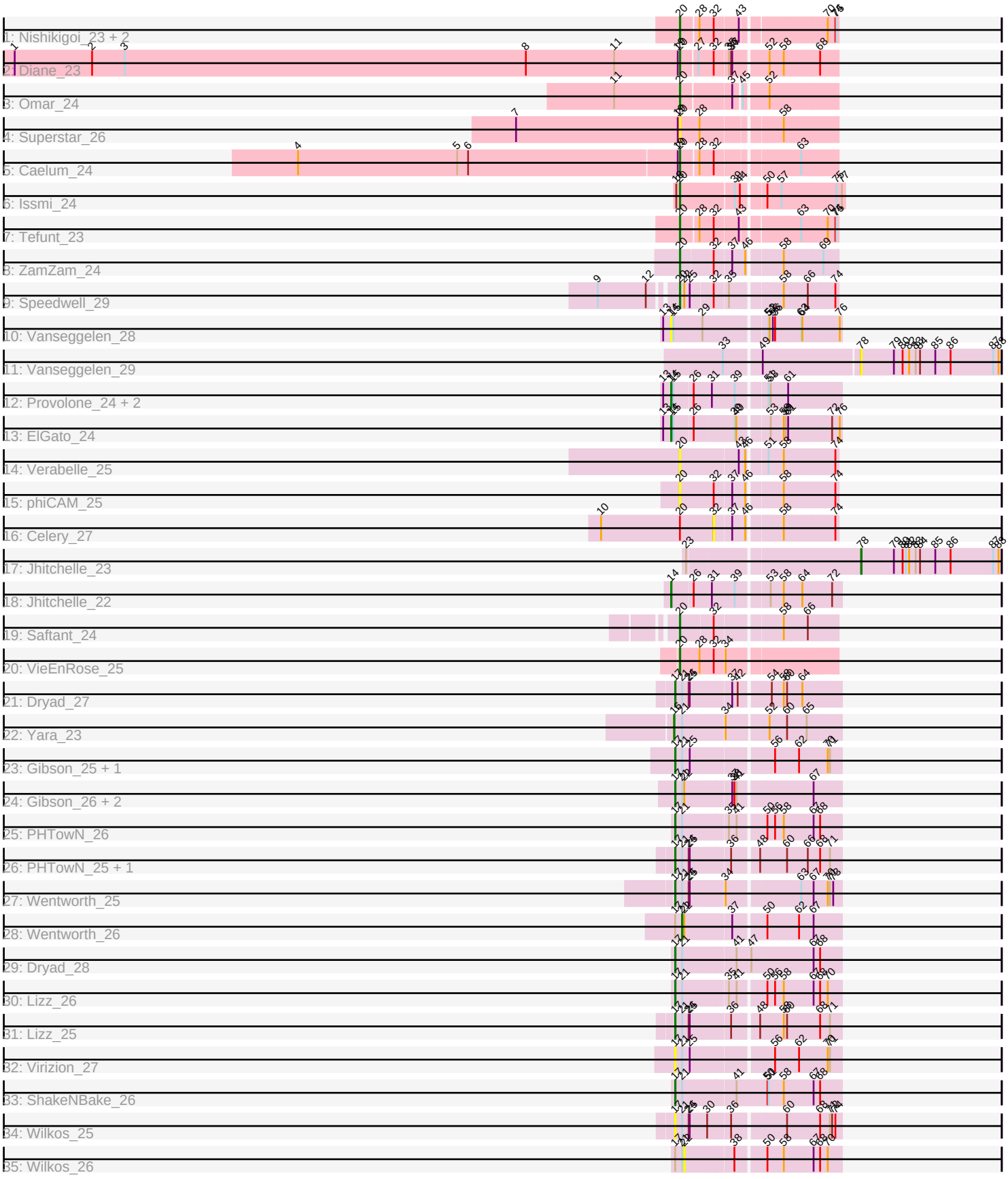
Pham 347770


1: Nishikigoi_23 + 2
2: Diane_23
3: Omar_24
4: Superstar_26
5: Caelum_24
6: Issmi_24
7: Tefunt_23
8: ZamZam_24
9: Speedwell_29
10: Vanseggelen_28
11: Vanseggelen_29
12: Provolone_24 + 2
13: ElGato_24
14: Verabelle_25
15: phiCAM_25
16: Celery_27
17: Jhitchelle_23
18: Jhitchelle_22
19: Saftant_24
20: VieEnRose_25
21: Dryad_27
22: Yara_23
23: Gibson_25 + 1
24: Gibson_26 + 2
25: PHTowN_26
26: PHTowN_25 + 1
27: Wentworth_25
28: Wentworth_26
29: Dryad_28
30: Lizz_26
31: Lizz_25
32: Virizion_27
33: ShakeNBake_26
34: Wilkos_25
35: Wilkos_26

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 347770 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347770 has 43 members, 10 are drafts.

Phages represented in each track:
- Track 1 : Nishikigoi_23, Haizum_23, Amethyst_23
- Track 2 : Diane_23
- Track 3 : Omar_24
- Track 4 : Superstar_26
- Track 5 : Caelum_24
- Track 6 : Issmi_24
- Track 7 : Tefunt_23
- Track 8 : ZamZam_24
- Track 9 : Speedwell_29
- Track 10 : Vanseggelen_28
- Track 11 : Vanseggelen_29
- Track 12 : Provolone_24, Conan_24, Pavo_24
- Track 13 : ElGato_24
- Track 14 : Verabelle_25
- Track 15 : phiCAM_25
- Track 16 : Celery_27
- Track 17 : Jhitchelle_23
- Track 18 : Jhitchelle_22
- Track 19 : Saftant_24
- Track 20 : VieEnRose_25
- Track 21 : Dryad_27
- Track 22 : Yara_23
- Track 23 : Gibson_25, Rooney_25
- Track 24 : Gibson_26, Rooney_26, Virizion_28
- Track 25 : PHTowN_26
- Track 26 : PHTowN_25, ShakeNBake_25
- Track 27 : Wentworth_25
- Track 28 : Wentworth_26
- Track 29 : Dryad_28
- Track 30 : Lizz_26
- Track 31 : Lizz_25
- Track 32 : Virizion_27
- Track 33 : ShakeNBake_26
- Track 34 : Wilkos_25
- Track 35 : Wilkos_26

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

The start number called the most often in the published annotations is 17, it was called in 13 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Dryad_27, Dryad_28, Gibson_25, Gibson_26, Lizz_25, Lizz_26, PHTowN_25, PHTowN_26, Rooney_25, Rooney_26, ShakeNBake_25, ShakeNBake_26, Virizion_27, Virizion_28, Wentworth_25, Wilkos_25,

Genes that have the "Most Annotated" start but do not call it:
• Wentworth_26, Wilkos_26,

Genes that do not have the "Most Annotated" start:
• Amethyst_23, Caelum_24, Celery_27, Conan_24, Diane_23, ElGato_24, Haizum_23, Issmi_24, Jhitchelle_22, Jhitchelle_23, Nishikigoi_23, Omar_24, Pavo_24, Provolone_24, Saftant_24, Speedwell_29, Superstar_26, Tefunt_23, Vanseggelen_28, Vanseggelen_29, Verabelle_25, VieEnRose_25, Yara_23, ZamZam_24, phiCAM_25,

Summary by start number:

Start 14:
• Found in 6 of 43 (14.0%) of genes in pham
• Manual Annotations of this start: 5 of 33
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Conan_24 (BD3), ElGato_24 (BD3), Jhitchelle_22 (BD3), Pavo_24 (BD3), Provolone_24 (BD3), Vanseggelen_28 (BD3),

Start 16:
• Found in 1 of 43 (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: Yara_23 (BN),

Start 17:
• Found in 18 of 43 (41.9%) of genes in pham
• Manual Annotations of this start: 13 of 33
• Called 88.9% of time when present
• Phage (with cluster) where this start called: Dryad_27 (BN), Dryad_28 (BN), Gibson_25 (BN), Gibson_26 (BN), Lizz_25 (BN), Lizz_26 (BN), PHTowN_25 (BN), PHTowN_26 (BN), Rooney_25 (BN), Rooney_26 (BN), ShakeNBake_25 (BN), ShakeNBake_26 (BN), Virizion_27 (BN), Virizion_28 (BN), Wentworth_25 (BN), Wilkos_25 (BN),

Start 20:
• Found in 16 of 43 (37.2%) of genes in pham
• Manual Annotations of this start: 12 of 33
• Called 93.8% of time when present
• Phage (with cluster) where this start called: Amethyst_23 (BD2), Caelum_24 (BD2), Diane_23 (BD2), Haizum_23 (BD2), Issmi_24 (BD2), Nishikigoi_23 (BD2), Omar_24 (BD2), Saftant_24 (BD3), Speedwell_29 (BD3), Superstar_26 (BD2), Tefunt_23

(BD2), Verabelle_25 (BD3), VieEnRose_25 (BD6), ZamZam_24 (BD3), phiCAM_25 (BD3),

Start 21:
• Found in 19 of 43 (44.2%) of genes in pham
• Manual Annotations of this start: 1 of 33
• Called 5.3% of time when present
• Phage (with cluster) where this start called: Wentworth_26 (BN),

Start 22:
• Found in 6 of 43 (14.0%) of genes in pham
• No Manual Annotations of this start.
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Wilkos_26 (BN),

Start 32:
• Found in 12 of 43 (27.9%) of genes in pham
• No Manual Annotations of this start.
• Called 8.3% of time when present
• Phage (with cluster) where this start called: Celery_27 (BD3),

Start 78:
• Found in 2 of 43 (4.7%) 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: Jhitchelle_23 (BD3), Vanseggelen_29 (BD3),

Summary by clusters:

There are 4 clusters represented in this pham: BN, BD6, BD3, BD2,

Info for manual annotations of cluster BD2:
•Start number 20 was manually annotated 8 times for cluster BD2.

Info for manual annotations of cluster BD3:
•Start number 14 was manually annotated 5 times for cluster BD3.
•Start number 20 was manually annotated 3 times for cluster BD3.
•Start number 78 was manually annotated 1 time for cluster BD3.

Info for manual annotations of cluster BD6:
•Start number 20 was manually annotated 1 time for cluster BD6.

Info for manual annotations of cluster BN:
•Start number 16 was manually annotated 1 time for cluster BN.
•Start number 17 was manually annotated 13 times for cluster BN.
•Start number 21 was manually annotated 1 time for cluster BN.

Gene Information:

Gene: Amethyst_23 Start: 19487, Stop: 19861, Start Num: 20

Candidate Starts for Amethyst_23:
(Start: 20 @19487 has 12 MA's), (28, 19532), (32, 19568), (43, 19628), (70, 19832), (74, 19853), (75, 19856),

Gene: Caelum_24 Start: 19614, Stop: 19991, Start Num: 20
Candidate Starts for Caelum_24:
(4, 18576), (5, 19014), (6, 19044), (19, 19608), (Start: 20 @19614 has 12 MA's), (28, 19659), (32, 19695), (63, 19896),

Gene: Celery_27 Start: 20605, Stop: 20901, Start Num: 32
Candidate Starts for Celery_27:
(10, 20305), (Start: 20 @20515 has 12 MA's), (32, 20605), (37, 20647), (46, 20677), (58, 20761), (74, 20893),

Gene: Conan_24 Start: 19886, Stop: 20293, Start Num: 14
Candidate Starts for Conan_24:
(13, 19865), (Start: 14 @19886 has 5 MA's), (15, 19892), (26, 19940), (31, 19985), (39, 20036), (51, 20102), (53, 20108), (61, 20156),

Gene: Diane_23 Start: 19871, Stop: 20263, Start Num: 20
Candidate Starts for Diane_23:
(1, 18041), (2, 18254), (3, 18344), (8, 19448), (11, 19691), (19, 19865), (Start: 20 @19871 has 12 MA's), (27, 19913), (32, 19952), (35, 19985), (36, 19991), (37, 19994), (52, 20081), (58, 20120), (68, 20216),

Gene: Dryad_27 Start: 18904, Stop: 19314, Start Num: 17
Candidate Starts for Dryad_27:
(Start: 17 @18904 has 13 MA's), (Start: 21 @18922 has 1 MA's), (24, 18940), (25, 18943), (37, 19048), (42, 19063), (54, 19126), (58, 19159), (60, 19168), (64, 19210),

Gene: Dryad_28 Start: 19324, Stop: 19755, Start Num: 17
Candidate Starts for Dryad_28:
(Start: 17 @19324 has 13 MA's), (Start: 21 @19342 has 1 MA's), (41, 19480), (47, 19519), (67, 19681), (68, 19699),

Gene: ElGato_24 Start: 19532, Stop: 19939, Start Num: 14
Candidate Starts for ElGato_24:
(13, 19511), (Start: 14 @19532 has 5 MA's), (15, 19538), (26, 19586), (39, 19682), (40, 19685), (53, 19754), (58, 19790), (59, 19796), (61, 19802), (72, 19913), (76, 19934),

Gene: Gibson_25 Start: 18596, Stop: 19006, Start Num: 17
Candidate Starts for Gibson_25:
(Start: 17 @18596 has 13 MA's), (Start: 21 @18614 has 1 MA's), (25, 18635), (56, 18827), (62, 18893), (70, 18968), (71, 18974),

Gene: Gibson_26 Start: 19017, Stop: 19430, Start Num: 17
Candidate Starts for Gibson_26:
(Start: 17 @19017 has 13 MA's), (Start: 21 @19035 has 1 MA's), (22, 19041), (37, 19161), (38, 19167), (41, 19173), (67, 19356),

Gene: Haizum_23 Start: 19509, Stop: 19883, Start Num: 20
Candidate Starts for Haizum_23:

(Start: 20 @19509 has 12 MA's), (28, 19554), (32, 19590), (43, 19650), (70, 19854), (74, 19875), (75, 19878),

Gene: Issmi_24 Start: 20233, Stop: 20640, Start Num: 20
Candidate Starts for Issmi_24:
(18, 20227), (Start: 20 @20233 has 12 MA's), (39, 20368), (44, 20380), (50, 20431), (57, 20470), (75, 20617), (77, 20632),

Gene: Jhitchelle_23 Start: 20029, Stop: 20415, Start Num: 78
Candidate Starts for Jhitchelle_23:
(23, 19609), (Start: 78 @20029 has 1 MA's), (79, 20119), (80, 20143), (81, 20152), (82, 20161), (83, 20179), (84, 20191), (85, 20233), (86, 20275), (87, 20392), (88, 20407),

Gene: Jhitchelle_22 Start: 19568, Stop: 19975, Start Num: 14
Candidate Starts for Jhitchelle_22:
(Start: 14 @19568 has 5 MA's), (26, 19622), (31, 19667), (39, 19718), (53, 19790), (58, 19826), (64, 19874), (72, 19949),

Gene: Lizz_26 Start: 18825, Stop: 19238, Start Num: 17
Candidate Starts for Lizz_26:
(Start: 17 @18825 has 13 MA's), (Start: 21 @18843 has 1 MA's), (35, 18960), (41, 18981), (50, 19038), (56, 19059), (58, 19083), (67, 19164), (68, 19182), (70, 19200),

Gene: Lizz_25 Start: 18405, Stop: 18815, Start Num: 17
Candidate Starts for Lizz_25:
(Start: 17 @18405 has 13 MA's), (Start: 21 @18423 has 1 MA's), (24, 18441), (25, 18444), (36, 18546), (48, 18606), (58, 18660), (60, 18669), (68, 18759), (71, 18783),

Gene: Nishikigoi_23 Start: 19509, Stop: 19883, Start Num: 20
Candidate Starts for Nishikigoi_23:
(Start: 20 @19509 has 12 MA's), (28, 19554), (32, 19590), (43, 19650), (70, 19854), (74, 19875), (75, 19878),

Gene: Omar_24 Start: 19908, Stop: 20285, Start Num: 20
Candidate Starts for Omar_24:
(11, 19728), (Start: 20 @19908 has 12 MA's), (37, 20031), (45, 20049), (52, 20103),

Gene: PHTowN_26 Start: 18825, Stop: 19238, Start Num: 17
Candidate Starts for PHTowN_26:
(Start: 17 @18825 has 13 MA's), (Start: 21 @18843 has 1 MA's), (35, 18960), (41, 18981), (50, 19038), (56, 19059), (58, 19083), (67, 19164), (68, 19182),

Gene: PHTowN_25 Start: 18405, Stop: 18815, Start Num: 17
Candidate Starts for PHTowN_25:
(Start: 17 @18405 has 13 MA's), (Start: 21 @18423 has 1 MA's), (24, 18441), (25, 18444), (36, 18546), (48, 18606), (60, 18669), (66, 18726), (68, 18759), (71, 18783),

Gene: Pavo_24 Start: 20159, Stop: 20566, Start Num: 14
Candidate Starts for Pavo_24:
(13, 20138), (Start: 14 @20159 has 5 MA's), (15, 20165), (26, 20213), (31, 20258), (39, 20309), (51, 20375), (53, 20381), (61, 20429),

Gene: Provolone_24 Start: 19532, Stop: 19939, Start Num: 14

Candidate Starts for Provolone_24:
(13, 19511), (Start: 14 @19532 has 5 MA's), (15, 19538), (26, 19586), (31, 19631), (39, 19682), (51, 19748), (53, 19754), (61, 19802),

Gene: Rooney_26 Start: 19014, Stop: 19427, Start Num: 17
Candidate Starts for Rooney_26:
(Start: 17 @19014 has 13 MA's), (Start: 21 @19032 has 1 MA's), (22, 19038), (37, 19158), (38, 19164), (41, 19170), (67, 19353),

Gene: Rooney_25 Start: 18593, Stop: 19003, Start Num: 17
Candidate Starts for Rooney_25:
(Start: 17 @18593 has 13 MA's), (Start: 21 @18611 has 1 MA's), (25, 18632), (56, 18824), (62, 18890), (70, 18965), (71, 18971),

Gene: Saftant_24 Start: 20799, Stop: 21173, Start Num: 20
Candidate Starts for Saftant_24:
(Start: 20 @20799 has 12 MA's), (32, 20880), (58, 21033), (66, 21096),

Gene: ShakeNBake_26 Start: 18825, Stop: 19256, Start Num: 17
Candidate Starts for ShakeNBake_26:
(Start: 17 @18825 has 13 MA's), (Start: 21 @18843 has 1 MA's), (41, 18981), (50, 19056), (51, 19059), (58, 19101), (67, 19182), (68, 19200),

Gene: ShakeNBake_25 Start: 18405, Stop: 18815, Start Num: 17
Candidate Starts for ShakeNBake_25:
(Start: 17 @18405 has 13 MA's), (Start: 21 @18423 has 1 MA's), (24, 18441), (25, 18444), (36, 18546), (48, 18606), (60, 18669), (66, 18726), (68, 18759), (71, 18783),

Gene: Speedwell_29 Start: 22006, Stop: 22380, Start Num: 20
Candidate Starts for Speedwell_29:
(9, 21811), (12, 21943), (Start: 20 @22006 has 12 MA's), (22, 22018), (25, 22033), (32, 22087), (35, 22120), (58, 22240), (66, 22303), (74, 22372),

Gene: Superstar_26 Start: 20776, Stop: 21162, Start Num: 20
Candidate Starts for Superstar_26:
(7, 20326), (19, 20770), (Start: 20 @20776 has 12 MA's), (28, 20830), (58, 21022),

Gene: Tefunt_23 Start: 19512, Stop: 19886, Start Num: 20
Candidate Starts for Tefunt_23:
(Start: 20 @19512 has 12 MA's), (28, 19557), (32, 19593), (43, 19653), (63, 19791), (70, 19857), (74, 19878), (75, 19881),

Gene: Vanseggelen_28 Start: 19756, Stop: 20190, Start Num: 14
Candidate Starts for Vanseggelen_28:
(13, 19735), (Start: 14 @19756 has 5 MA's), (15, 19762), (29, 19840), (51, 19996), (52, 19999), (55, 20008), (56, 20014), (63, 20083), (64, 20086), (76, 20185),

Gene: Vanseggelen_29 Start: 20234, Stop: 20620, Start Num: 78
Candidate Starts for Vanseggelen_29:
(33, 19895), (49, 19982), (Start: 78 @20234 has 1 MA's), (79, 20324), (80, 20348), (82, 20366), (83, 20384), (84, 20396), (85, 20438), (86, 20480), (87, 20597), (88, 20612),

Gene: Verabelle_25 Start: 20280, Stop: 20666, Start Num: 20

Candidate Starts for Verabelle_25:
(Start: 20 @20280 has 12 MA's), (43, 20430), (46, 20442), (51, 20484), (58, 20526), (74, 20658),

Gene: VieEnRose_25 Start: 19667, Stop: 20053, Start Num: 20
Candidate Starts for VieEnRose_25:
(Start: 20 @19667 has 12 MA's), (28, 19721), (32, 19757), (34, 19781),

Gene: Virizion_28 Start: 19213, Stop: 19626, Start Num: 17
Candidate Starts for Virizion_28:
(Start: 17 @19213 has 13 MA's), (Start: 21 @19231 has 1 MA's), (22, 19237), (37, 19357), (38, 19363), (41, 19369), (67, 19552),

Gene: Virizion_27 Start: 18792, Stop: 19202, Start Num: 17
Candidate Starts for Virizion_27:
(Start: 17 @18792 has 13 MA's), (Start: 21 @18810 has 1 MA's), (25, 18831), (56, 19023), (62, 19089), (70, 19164), (71, 19170),

Gene: Wentworth_25 Start: 18219, Stop: 18629, Start Num: 17
Candidate Starts for Wentworth_25:
(Start: 17 @18219 has 13 MA's), (Start: 21 @18237 has 1 MA's), (24, 18255), (25, 18258), (34, 18345), (63, 18522), (67, 18555), (70, 18591), (71, 18597), (73, 18606),

Gene: Wentworth_26 Start: 18658, Stop: 19056, Start Num: 21
Candidate Starts for Wentworth_26:
(Start: 17 @18640 has 13 MA's), (Start: 21 @18658 has 1 MA's), (22, 18664), (37, 18784), (50, 18856), (62, 18943), (67, 18982),

Gene: Wilkos_25 Start: 18352, Stop: 18765, Start Num: 17
Candidate Starts for Wilkos_25:
(Start: 17 @18352 has 13 MA's), (Start: 21 @18370 has 1 MA's), (24, 18388), (25, 18391), (30, 18439), (36, 18496), (60, 18619), (68, 18709), (71, 18733), (72, 18739), (74, 18748),

Gene: Wilkos_26 Start: 18799, Stop: 19188, Start Num: 22
Candidate Starts for Wilkos_26:
(Start: 17 @18775 has 13 MA's), (Start: 21 @18793 has 1 MA's), (22, 18799), (38, 18925), (50, 18988), (58, 19033), (67, 19114), (68, 19132), (70, 19150),

Gene: Yara_23 Start: 18446, Stop: 18862, Start Num: 16
Candidate Starts for Yara_23:
(Start: 16 @18446 has 1 MA's), (Start: 21 @18467 has 1 MA's), (34, 18575), (52, 18671), (60, 18719), (65, 18770),

Gene: ZamZam_24 Start: 20738, Stop: 21115, Start Num: 20
Candidate Starts for ZamZam_24:
(Start: 20 @20738 has 12 MA's), (32, 20819), (37, 20861), (46, 20891), (58, 20975), (69, 21074),

Gene: phiCAM_25 Start: 22546, Stop: 22932, Start Num: 20
Candidate Starts for phiCAM_25:
(Start: 20 @22546 has 12 MA's), (32, 22636), (37, 22678), (46, 22708), (58, 22792), (74, 22924),