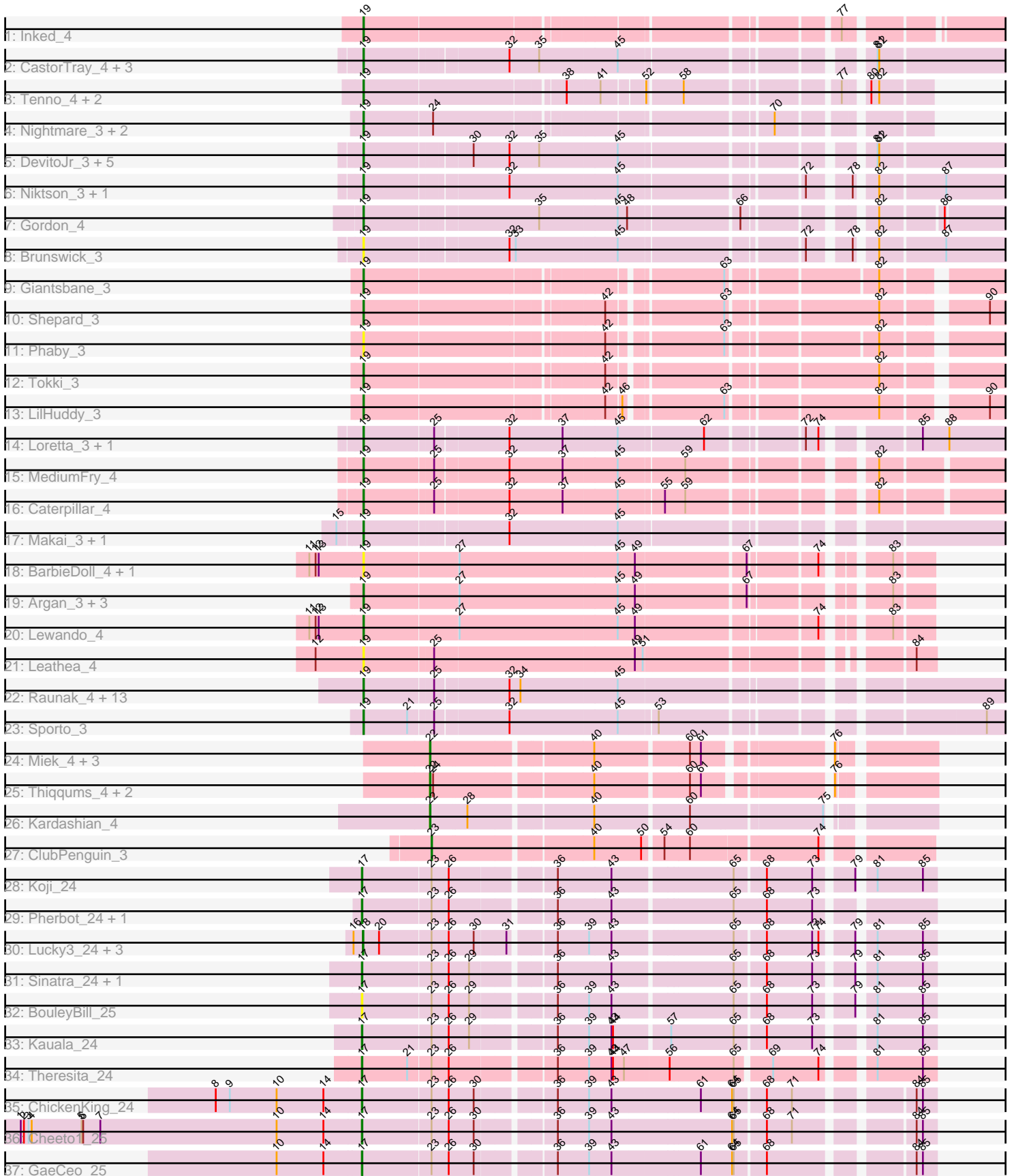


Pham 163556



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 163556 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163556 has 79 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Inked_4
- Track 2 : CastorTray_4, AreFloNak_3, Nivinsha_3, Tatanka_3
- Track 3 : Tenno_4, MiniBagel_4, CapnMurica_4
- Track 4 : Nightmare_3, Teacup_4, Issa_3
- Track 5 : DevitoJr_3, Darby_3, ScienceWizSam_4, Breylor17_3, Trustiboi_3, Synopsis_3
- Track 6 : Niktson_3, ElephantMan_3
- Track 7 : Gordon_4
- Track 8 : Brunswick_3
- Track 9 : Giantsbane_3
- Track 10 : Shepard_3
- Track 11 : Phaby_3
- Track 12 : Tokki_3
- Track 13 : LilHuddy_3
- Track 14 : Loretta_3, Ingrid_3
- Track 15 : MediumFry_4
- Track 16 : Caterpillar_4
- Track 17 : Makai_3, Truckee_3
- Track 18 : BarbieDoll_4, Renaldo_5
- Track 19 : Argan_3, Zeina_4, Uzumaki_4, GantcherGoblin_3
- Track 20 : Lewando_4
- Track 21 : Leathea_4
- Track 22 : Raunak_4, MrAaronian_4, Egad_4, ProfFrink_4, Djungelskog_4, StarLord_4, BronxBay_4, Michelle_4, Sloopyjoe_4, Salk_4, Shiba_4, Stayer_4, Linda_4, DoctorPepper_4
- Track 23 : Sporto_3
- Track 24 : Miek_4, Regigigas_4, FromIndy_4, SendItCS_4
- Track 25 : Thiqqums_4, Rainydai_4, CricKo_4
- Track 26 : Kardashian_4
- Track 27 : ClubPenguin_3
- Track 28 : Koji_24
- Track 29 : Pherbot_24, Bustleton_24
- Track 30 : Lucky3_24, SirVictor_24, Guetzie_24, Golden_24
- Track 31 : Sinatra_24, PrincePhergus_24
- Track 32 : BouleyBill_25
- Track 33 : Kauala_24
- Track 34 : Theresita_24

- Track 35 : ChickenKing_24
- Track 36 : Cheeto1_25
- Track 37 : GaeCeo_25

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 43 of the 64 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AreFloNak_3, Argan_3, BarbieDoll_4, Breylor17_3, BronxBay_4, Brunswick_3, CapnMurica_4, CastorTray_4, Caterpillar_4, Darby_3, DevitoJr_3, Djungelskog_4, DoctorPepper_4, Egad_4, ElephantMan_3, GantcherGoblin_3, Giantsbane_3, Gordon_4, Ingrid_3, Inked_4, Issa_3, Leatheia_4, Lewando_4, LilHuddy_3, Linda_4, Loretta_3, Makai_3, MediumFry_4, Michelle_4, MiniBagel_4, MrAaronian_4, Nightmare_3, Niktson_3, Nivinsha_3, Phaby_3, ProfFrink_4, Raunak_4, Renaldo_5, Salk_4, ScienceWizSam_4, Shepard_3, Shiba_4, Sloopyjoe_4, Sporto_3, StarLord_4, Stayer_4, Synepsis_3, Tatanka_3, Teacup_4, Tenno_4, Tokki_3, Truckee_3, Trustiboi_3, Uzumaki_4, Zeina_4,

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

-

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

- BouleyBill_25, Bustleton_24, Cheeto1_25, ChickenKing_24, ClubPenguin_3, CricKo_4, FromIndy_4, GaeCeo_25, Golden_24, Guetzie_24, Kardashian_4, Kauala_24, Koji_24, Lucky3_24, Miek_4, Pherbot_24, PrincePhergus_24, Rainydai_4, Regigigas_4, SendItCS_4, Sinatra_24, SirVictor_24, Theresita_24, Thiqqums_4,

Summary by start number:

Start 17:

- Found in 11 of 79 (13.9%) of genes in pham
- Manual Annotations of this start: 10 of 64
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BouleyBill_25 (EA4), Bustleton_24 (EA4), Cheeto1_25 (EA9), ChickenKing_24 (EA9), GaeCeo_25 (EA9), Kauala_24 (EA4), Koji_24 (EA4), Pherbot_24 (EA4), PrincePhergus_24 (EA4), Sinatra_24 (EA4), Theresita_24 (EA7),

Start 18:

- Found in 4 of 79 (5.1%) of genes in pham
- Manual Annotations of this start: 4 of 64
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Golden_24 (EA4), Guetzie_24 (EA4), Lucky3_24 (EA4), SirVictor_24 (EA4),

Start 19:

- Found in 55 of 79 (69.6%) of genes in pham

- Manual Annotations of this start: 43 of 64
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AreFloNak_3 (AU1), Argan_3 (AU6), BarbieDoll_4 (AU6), Breylor17_3 (AU1), BronxBay_4 (AW), Brunswick_3 (AU1), CapnMurica_4 (AU1), CastorTray_4 (AU1), Caterpillar_4 (AU4), Darby_3 (AU1), DevitoJr_3 (AU1), Djungelskog_4 (AW), DoctorPepper_4 (AW), Egad_4 (AW), ElephantMan_3 (AU1), GantcherGoblin_3 (AU6), Giantsbane_3 (AU2), Gordon_4 (AU1), Ingrid_3 (AU3), Inked_4 (AU), Issa_3 (AU1), Leathea_4 (AU6), Lewando_4 (AU6), LilHuddy_3 (AU2), Linda_4 (AW), Loretta_3 (AU3), Makai_3 (AU5), MediumFry_4 (AU4), Michelle_4 (AW), MiniBagel_4 (AU1), MrAaronian_4 (AW), Nightmare_3 (AU1), Niktson_3 (AU1), Nivinsha_3 (AU1), Phaby_3 (AU2), ProfFrink_4 (AW), Raunak_4 (AW), Renaldo_5 (AU6), Salk_4 (AW), ScienceWizSam_4 (AU1), Shepard_3 (AU2), Shiba_4 (AW), Sloopyjoe_4 (AW), Sporto_3 (AW), StarLord_4 (AW), Stayer_4 (AW), Synopsis_3 (AU1), Tatanka_3 (AU1), Teacup_4 (AU1), Tenno_4 (AU1), Tokki_3 (AU2), Truckee_3 (AU5), Trustiboi_3 (AU1), Uzumaki_4 (AU6), Zeina_4 (AU6),

Start 22:

- Found in 8 of 79 (10.1%) of genes in pham
- Manual Annotations of this start: 6 of 64
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CricKo_4 (BI4), FromIndy_4 (BI4), Kardashian_4 (BI6), Miek_4 (BI4), Rainydai_4 (BI4), Regigigas_4 (BI4), SendItCS_4 (BI4), Thiqqums_4 (BI4),

Start 23:

- Found in 16 of 79 (20.3%) of genes in pham
- Manual Annotations of this start: 1 of 64
- Called 6.2% of time when present
- Phage (with cluster) where this start called: ClubPenguin_3 (BI7),

Summary by clusters:

There are 14 clusters represented in this pham: AU1, BI7, EA9, AU3, AU2, AU, AU4, AW, AU6, BI6, AU5, BI4, EA4, EA7,

Info for manual annotations of cluster AU:

- Start number 19 was manually annotated 1 time for cluster AU.

Info for manual annotations of cluster AU1:

- Start number 19 was manually annotated 15 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 19 was manually annotated 4 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 19 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 19 was manually annotated 2 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 19 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:

- Start number 19 was manually annotated 5 times for cluster AU6.

Info for manual annotations of cluster AW:

- Start number 19 was manually annotated 12 times for cluster AW.

Info for manual annotations of cluster BI4:

- Start number 22 was manually annotated 5 times for cluster BI4.

Info for manual annotations of cluster BI6:

- Start number 22 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:

- Start number 23 was manually annotated 1 time for cluster BI7.

Info for manual annotations of cluster EA4:

- Start number 17 was manually annotated 6 times for cluster EA4.
- Start number 18 was manually annotated 4 times for cluster EA4.

Info for manual annotations of cluster EA7:

- Start number 17 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EA9:

- Start number 17 was manually annotated 3 times for cluster EA9.

Gene Information:

Gene: AreFloNak_3 Start: 1412, Stop: 2536, Start Num: 19

Candidate Starts for AreFloNak_3:

(Start: 19 @1412 has 43 MA's), (32, 1670), (35, 1727), (45, 1874), (81, 2282), (82, 2285),

Gene: Argan_3 Start: 1237, Stop: 2217, Start Num: 19

Candidate Starts for Argan_3:

(Start: 19 @1237 has 43 MA's), (27, 1408), (45, 1708), (49, 1738), (67, 1936), (83, 2146),

Gene: BarbieDoll_4 Start: 1531, Stop: 2511, Start Num: 19

Candidate Starts for BarbieDoll_4:

(11, 1432), (12, 1444), (13, 1450), (Start: 19 @1531 has 43 MA's), (27, 1702), (45, 2002), (49, 2032), (67, 2230), (74, 2347), (83, 2440),

Gene: BouleyBill_25 Start: 18629, Stop: 19621, Start Num: 17

Candidate Starts for BouleyBill_25:

(Start: 17 @18629 has 10 MA's), (Start: 23 @18758 has 1 MA's), (26, 18791), (29, 18830), (36, 18971), (39, 19031), (43, 19073), (65, 19286), (68, 19337), (73, 19424), (79, 19487), (81, 19508), (85, 19595),

Gene: Breylor17_3 Start: 1537, Stop: 2661, Start Num: 19

Candidate Starts for Breylor17_3:

(Start: 19 @1537 has 43 MA's), (30, 1726), (32, 1795), (35, 1852), (45, 1999), (81, 2407), (82, 2410),

Gene: BronxBay_4 Start: 1439, Stop: 2572, Start Num: 19
Candidate Starts for BronxBay_4:
(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: Brunswick_3 Start: 1546, Stop: 2670, Start Num: 19
Candidate Starts for Brunswick_3:
(Start: 19 @1546 has 43 MA's), (32, 1804), (33, 1816), (45, 2008), (72, 2323), (78, 2389), (82, 2419),
(87, 2539),

Gene: Bustleton_24 Start: 18617, Stop: 19621, Start Num: 17
Candidate Starts for Bustleton_24:
(Start: 17 @18617 has 10 MA's), (Start: 23 @18746 has 1 MA's), (26, 18779), (36, 18959), (43,
19061), (65, 19274), (68, 19337), (73, 19424),

Gene: CapnMurica_4 Start: 2789, Stop: 3742, Start Num: 19
Candidate Starts for CapnMurica_4:
(Start: 19 @2789 has 43 MA's), (38, 3149), (41, 3209), (52, 3281), (58, 3344), (77, 3599), (80, 3632),
(82, 3647),

Gene: CastorTray_4 Start: 1391, Stop: 2515, Start Num: 19
Candidate Starts for CastorTray_4:
(Start: 19 @1391 has 43 MA's), (32, 1649), (35, 1706), (45, 1853), (81, 2261), (82, 2264),

Gene: Caterpillar_4 Start: 1620, Stop: 2729, Start Num: 19
Candidate Starts for Caterpillar_4:
(Start: 19 @1620 has 43 MA's), (25, 1746), (32, 1881), (37, 1983), (45, 2085), (55, 2160), (59, 2199),
(82, 2493),

Gene: Cheeto1_25 Start: 18442, Stop: 19443, Start Num: 17
Candidate Starts for Cheeto1_25:
(1, 17788), (2, 17794), (3, 17803), (4, 17809), (5, 17905), (6, 17908), (7, 17941), (10, 18280), (14,
18370), (Start: 17 @18442 has 10 MA's), (Start: 23 @18571 has 1 MA's), (26, 18604), (30, 18652),
(36, 18784), (39, 18844), (43, 18886), (64, 19111), (65, 19114), (68, 19168), (71, 19216), (84, 19405),
(85, 19417),

Gene: ChickenKing_24 Start: 18340, Stop: 19338, Start Num: 17
Candidate Starts for ChickenKing_24:
(8, 18061), (9, 18088), (10, 18178), (14, 18268), (Start: 17 @18340 has 10 MA's), (Start: 23 @18469
has 1 MA's), (26, 18502), (30, 18550), (36, 18682), (39, 18742), (43, 18784), (61, 18946), (64, 19006),
(65, 19009), (68, 19063), (71, 19111), (84, 19300), (85, 19312),

Gene: ClubPenguin_3 Start: 874, Stop: 1728, Start Num: 23
Candidate Starts for ClubPenguin_3:
(Start: 23 @874 has 1 MA's), (40, 1156), (50, 1246), (54, 1276), (60, 1324), (74, 1555),

Gene: CricKo_4 Start: 1128, Stop: 1970, Start Num: 22
Candidate Starts for CricKo_4:
(Start: 22 @1128 has 6 MA's), (24, 1134), (40, 1413), (60, 1581), (61, 1602), (76, 1806),

Gene: Darby_3 Start: 1394, Stop: 2518, Start Num: 19
Candidate Starts for Darby_3:
(Start: 19 @1394 has 43 MA's), (30, 1583), (32, 1652), (35, 1709), (45, 1856), (81, 2264), (82, 2267),

Gene: DevitoJr_3 Start: 1536, Stop: 2660, Start Num: 19
Candidate Starts for DevitoJr_3:
(Start: 19 @1536 has 43 MA's), (30, 1725), (32, 1794), (35, 1851), (45, 1998), (81, 2406), (82, 2409),

Gene: Djungelskog_4 Start: 1439, Stop: 2572, Start Num: 19
Candidate Starts for Djungelskog_4:
(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: DoctorPepper_4 Start: 1439, Stop: 2572, Start Num: 19
Candidate Starts for DoctorPepper_4:
(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: Egad_4 Start: 1440, Stop: 2573, Start Num: 19
Candidate Starts for Egad_4:
(Start: 19 @1440 has 43 MA's), (25, 1566), (32, 1701), (34, 1722), (45, 1905),

Gene: ElephantMan_3 Start: 1549, Stop: 2673, Start Num: 19
Candidate Starts for ElephantMan_3:
(Start: 19 @1549 has 43 MA's), (32, 1807), (45, 2011), (72, 2326), (78, 2392), (82, 2422), (87, 2542),

Gene: FromIndy_4 Start: 1128, Stop: 1970, Start Num: 22
Candidate Starts for FromIndy_4:
(Start: 22 @1128 has 6 MA's), (40, 1413), (60, 1581), (61, 1602), (76, 1806),

Gene: GaeCeo_25 Start: 18513, Stop: 19511, Start Num: 17
Candidate Starts for GaeCeo_25:
(10, 18351), (14, 18441), (Start: 17 @18513 has 10 MA's), (Start: 23 @18642 has 1 MA's), (26, 18675), (30, 18723), (36, 18855), (39, 18915), (43, 18957), (61, 19119), (64, 19179), (65, 19182), (68, 19236), (84, 19473), (85, 19485),

Gene: GantcherGoblin_3 Start: 1237, Stop: 2217, Start Num: 19
Candidate Starts for GantcherGoblin_3:
(Start: 19 @1237 has 43 MA's), (27, 1408), (45, 1708), (49, 1738), (67, 1936), (83, 2146),

Gene: Giantsbane_3 Start: 1398, Stop: 2492, Start Num: 19
Candidate Starts for Giantsbane_3:
(Start: 19 @1398 has 43 MA's), (63, 2019), (82, 2274),

Gene: Golden_24 Start: 18704, Stop: 19696, Start Num: 18
Candidate Starts for Golden_24:
(16, 18686), (Start: 18 @18704 has 4 MA's), (20, 18734), (Start: 23 @18830 has 1 MA's), (26, 18863), (30, 18911), (31, 18968), (36, 19043), (39, 19103), (43, 19145), (65, 19358), (68, 19412), (73, 19499), (74, 19511), (79, 19562), (81, 19583), (85, 19670),

Gene: Gordon_4 Start: 2678, Stop: 3787, Start Num: 19
Candidate Starts for Gordon_4:
(Start: 19 @2678 has 43 MA's), (35, 2993), (45, 3140), (48, 3158), (66, 3353), (82, 3551), (86, 3659),

Gene: Guetzie_24 Start: 18692, Stop: 19684, Start Num: 18
Candidate Starts for Guetzie_24:
(16, 18674), (Start: 18 @18692 has 4 MA's), (20, 18722), (Start: 23 @18818 has 1 MA's), (26, 18851), (30, 18899), (31, 18956), (36, 19031), (39, 19091), (43, 19133), (65, 19346), (68, 19400), (73, 19487), (74, 19499), (79, 19550), (81, 19571), (85, 19658),

Gene: Ingrid_3 Start: 1418, Stop: 2536, Start Num: 19

Candidate Starts for Ingrid_3:

(Start: 19 @1418 has 43 MA's), (25, 1544), (32, 1679), (37, 1781), (45, 1883), (62, 2033), (72, 2195), (74, 2219), (85, 2366), (88, 2414),

Gene: Inked_4 Start: 1655, Stop: 2740, Start Num: 19

Candidate Starts for Inked_4:

(Start: 19 @1655 has 43 MA's), (77, 2465),

Gene: Issa_3 Start: 1538, Stop: 2491, Start Num: 19

Candidate Starts for Issa_3:

(Start: 19 @1538 has 43 MA's), (24, 1664), (70, 2243),

Gene: Kardashian_4 Start: 1143, Stop: 2003, Start Num: 22

Candidate Starts for Kardashian_4:

(Start: 22 @1143 has 6 MA's), (28, 1212), (40, 1428), (60, 1596), (75, 1836),

Gene: Kauala_24 Start: 18628, Stop: 19623, Start Num: 17

Candidate Starts for Kauala_24:

(Start: 17 @18628 has 10 MA's), (Start: 23 @18757 has 1 MA's), (26, 18790), (29, 18829), (36, 18970), (39, 19030), (43, 19072), (44, 19075), (57, 19168), (65, 19285), (68, 19339), (73, 19426), (81, 19510), (85, 19597),

Gene: Koji_24 Start: 18752, Stop: 19747, Start Num: 17

Candidate Starts for Koji_24:

(Start: 17 @18752 has 10 MA's), (Start: 23 @18881 has 1 MA's), (26, 18914), (36, 19094), (43, 19196), (65, 19409), (68, 19463), (73, 19550), (79, 19613), (81, 19634), (85, 19721),

Gene: Leathea_4 Start: 1424, Stop: 2404, Start Num: 19

Candidate Starts for Leathea_4:

(12, 1337), (Start: 19 @1424 has 43 MA's), (25, 1550), (49, 1922), (51, 1937), (84, 2366),

Gene: Lewando_4 Start: 1530, Stop: 2510, Start Num: 19

Candidate Starts for Lewando_4:

(11, 1431), (12, 1443), (13, 1449), (Start: 19 @1530 has 43 MA's), (27, 1701), (45, 2001), (49, 2031), (74, 2346), (83, 2439),

Gene: LilHuddy_3 Start: 1398, Stop: 2501, Start Num: 19

Candidate Starts for LilHuddy_3:

(Start: 19 @1398 has 43 MA's), (42, 1824), (46, 1851), (63, 2019), (82, 2283), (90, 2454),

Gene: Linda_4 Start: 1439, Stop: 2572, Start Num: 19

Candidate Starts for Linda_4:

(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: Loretta_3 Start: 1418, Stop: 2536, Start Num: 19

Candidate Starts for Loretta_3:

(Start: 19 @1418 has 43 MA's), (25, 1544), (32, 1679), (37, 1781), (45, 1883), (62, 2033), (72, 2195), (74, 2219), (85, 2366), (88, 2414),

Gene: Lucky3_24 Start: 18704, Stop: 19696, Start Num: 18

Candidate Starts for Lucky3_24:

(16, 18686), (Start: 18 @18704 has 4 MA's), (20, 18734), (Start: 23 @18830 has 1 MA's), (26, 18863), (30, 18911), (31, 18968), (36, 19043), (39, 19103), (43, 19145), (65, 19358), (68, 19412), (73, 19499), (74, 19511), (79, 19562), (81, 19583), (85, 19670),

Gene: Makai_3 Start: 1476, Stop: 2600, Start Num: 19

Candidate Starts for Makai_3:

(15, 1437), (Start: 19 @1476 has 43 MA's), (32, 1734), (45, 1938),

Gene: MediumFry_4 Start: 1649, Stop: 2758, Start Num: 19

Candidate Starts for MediumFry_4:

(Start: 19 @1649 has 43 MA's), (25, 1775), (32, 1910), (37, 2012), (45, 2114), (59, 2228), (82, 2522),

Gene: Michelle_4 Start: 1439, Stop: 2572, Start Num: 19

Candidate Starts for Michelle_4:

(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: Miek_4 Start: 1128, Stop: 1970, Start Num: 22

Candidate Starts for Miek_4:

(Start: 22 @1128 has 6 MA's), (40, 1413), (60, 1581), (61, 1602), (76, 1806),

Gene: MiniBagel_4 Start: 2789, Stop: 3742, Start Num: 19

Candidate Starts for MiniBagel_4:

(Start: 19 @2789 has 43 MA's), (38, 3149), (41, 3209), (52, 3281), (58, 3344), (77, 3599), (80, 3632), (82, 3647),

Gene: MrAaronian_4 Start: 1439, Stop: 2572, Start Num: 19

Candidate Starts for MrAaronian_4:

(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: Nightmare_3 Start: 1557, Stop: 2510, Start Num: 19

Candidate Starts for Nightmare_3:

(Start: 19 @1557 has 43 MA's), (24, 1683), (70, 2262),

Gene: Niktson_3 Start: 1549, Stop: 2673, Start Num: 19

Candidate Starts for Niktson_3:

(Start: 19 @1549 has 43 MA's), (32, 1807), (45, 2011), (72, 2326), (78, 2392), (82, 2422), (87, 2542),

Gene: Nivinsha_3 Start: 1412, Stop: 2536, Start Num: 19

Candidate Starts for Nivinsha_3:

(Start: 19 @1412 has 43 MA's), (32, 1670), (35, 1727), (45, 1874), (81, 2282), (82, 2285),

Gene: Phaby_3 Start: 1397, Stop: 2491, Start Num: 19

Candidate Starts for Phaby_3:

(Start: 19 @1397 has 43 MA's), (42, 1823), (63, 2018), (82, 2273),

Gene: Pherbot_24 Start: 18616, Stop: 19620, Start Num: 17

Candidate Starts for Pherbot_24:

(Start: 17 @18616 has 10 MA's), (Start: 23 @18745 has 1 MA's), (26, 18778), (36, 18958), (43, 19060), (65, 19273), (68, 19336), (73, 19423),

Gene: PrincePhergus_24 Start: 18622, Stop: 19617, Start Num: 17

Candidate Starts for PrincePhergus_24:

(Start: 17 @18622 has 10 MA's), (Start: 23 @18751 has 1 MA's), (26, 18784), (29, 18823), (36, 18964), (43, 19066), (65, 19279), (68, 19333), (73, 19420), (79, 19483), (81, 19504), (85, 19591),

Gene: ProfFrink_4 Start: 1439, Stop: 2572, Start Num: 19

Candidate Starts for ProfFrink_4:

(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: Rainydai_4 Start: 1128, Stop: 1970, Start Num: 22

Candidate Starts for Rainydai_4:

(Start: 22 @1128 has 6 MA's), (24, 1134), (40, 1413), (60, 1581), (61, 1602), (76, 1806),

Gene: Raunak_4 Start: 1439, Stop: 2572, Start Num: 19

Candidate Starts for Raunak_4:

(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: Regigigas_4 Start: 1128, Stop: 1970, Start Num: 22

Candidate Starts for Regigigas_4:

(Start: 22 @1128 has 6 MA's), (40, 1413), (60, 1581), (61, 1602), (76, 1806),

Gene: Renaldo_5 Start: 1531, Stop: 2511, Start Num: 19

Candidate Starts for Renaldo_5:

(11, 1432), (12, 1444), (13, 1450), (Start: 19 @1531 has 43 MA's), (27, 1702), (45, 2002), (49, 2032), (67, 2230), (74, 2347), (83, 2440),

Gene: Salk_4 Start: 1439, Stop: 2572, Start Num: 19

Candidate Starts for Salk_4:

(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: ScienceWizSam_4 Start: 1367, Stop: 2491, Start Num: 19

Candidate Starts for ScienceWizSam_4:

(Start: 19 @1367 has 43 MA's), (30, 1556), (32, 1625), (35, 1682), (45, 1829), (81, 2237), (82, 2240),

Gene: SendItCS_4 Start: 1128, Stop: 1970, Start Num: 22

Candidate Starts for SendItCS_4:

(Start: 22 @1128 has 6 MA's), (40, 1413), (60, 1581), (61, 1602), (76, 1806),

Gene: Shepard_3 Start: 1398, Stop: 2501, Start Num: 19

Candidate Starts for Shepard_3:

(Start: 19 @1398 has 43 MA's), (42, 1824), (63, 2019), (82, 2283), (90, 2454),

Gene: Shiba_4 Start: 1439, Stop: 2572, Start Num: 19

Candidate Starts for Shiba_4:

(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: Sinatra_24 Start: 18619, Stop: 19614, Start Num: 17

Candidate Starts for Sinatra_24:

(Start: 17 @18619 has 10 MA's), (Start: 23 @18748 has 1 MA's), (26, 18781), (29, 18820), (36, 18961), (43, 19063), (65, 19276), (68, 19330), (73, 19417), (79, 19480), (81, 19501), (85, 19588),

Gene: SirVictor_24 Start: 18692, Stop: 19684, Start Num: 18

Candidate Starts for SirVictor_24:

(16, 18674), (Start: 18 @18692 has 4 MA's), (20, 18722), (Start: 23 @18818 has 1 MA's), (26, 18851), (30, 18899), (31, 18956), (36, 19031), (39, 19091), (43, 19133), (65, 19346), (68, 19400), (73, 19487),

(74, 19499), (79, 19550), (81, 19571), (85, 19658),

Gene: Sloopyjoe_4 Start: 1440, Stop: 2573, Start Num: 19

Candidate Starts for Sloopyjoe_4:

(Start: 19 @1440 has 43 MA's), (25, 1566), (32, 1701), (34, 1722), (45, 1905),

Gene: Sporto_3 Start: 1392, Stop: 2516, Start Num: 19

Candidate Starts for Sporto_3:

(Start: 19 @1392 has 43 MA's), (21, 1476), (25, 1518), (32, 1653), (45, 1857), (53, 1923), (89, 2463),

Gene: StarLord_4 Start: 1440, Stop: 2573, Start Num: 19

Candidate Starts for StarLord_4:

(Start: 19 @1440 has 43 MA's), (25, 1566), (32, 1701), (34, 1722), (45, 1905),

Gene: Stayer_4 Start: 1439, Stop: 2572, Start Num: 19

Candidate Starts for Stayer_4:

(Start: 19 @1439 has 43 MA's), (25, 1565), (32, 1700), (34, 1721), (45, 1904),

Gene: Synopsis_3 Start: 1535, Stop: 2659, Start Num: 19

Candidate Starts for Synopsis_3:

(Start: 19 @1535 has 43 MA's), (30, 1724), (32, 1793), (35, 1850), (45, 1997), (81, 2405), (82, 2408),

Gene: Tatanka_3 Start: 1475, Stop: 2599, Start Num: 19

Candidate Starts for Tatanka_3:

(Start: 19 @1475 has 43 MA's), (32, 1733), (35, 1790), (45, 1937), (81, 2345), (82, 2348),

Gene: Teacup_4 Start: 1538, Stop: 2491, Start Num: 19

Candidate Starts for Teacup_4:

(Start: 19 @1538 has 43 MA's), (24, 1664), (70, 2243),

Gene: Tenno_4 Start: 2789, Stop: 3742, Start Num: 19

Candidate Starts for Tenno_4:

(Start: 19 @2789 has 43 MA's), (38, 3149), (41, 3209), (52, 3281), (58, 3344), (77, 3599), (80, 3632), (82, 3647),

Gene: Theresita_24 Start: 18223, Stop: 19221, Start Num: 17

Candidate Starts for Theresita_24:

(Start: 17 @18223 has 10 MA's), (21, 18310), (Start: 23 @18352 has 1 MA's), (26, 18385), (36, 18565), (39, 18625), (43, 18667), (44, 18670), (47, 18691), (56, 18769), (65, 18889), (69, 18949), (74, 19036), (81, 19108), (85, 19195),

Gene: Thiqqums_4 Start: 1128, Stop: 1970, Start Num: 22

Candidate Starts for Thiqqums_4:

(Start: 22 @1128 has 6 MA's), (24, 1134), (40, 1413), (60, 1581), (61, 1602), (76, 1806),

Gene: Tokki_3 Start: 1398, Stop: 2501, Start Num: 19

Candidate Starts for Tokki_3:

(Start: 19 @1398 has 43 MA's), (42, 1824), (82, 2283),

Gene: Truckee_3 Start: 1423, Stop: 2547, Start Num: 19

Candidate Starts for Truckee_3:

(15, 1384), (Start: 19 @1423 has 43 MA's), (32, 1681), (45, 1885),

Gene: Trustiboi_3 Start: 1556, Stop: 2680, Start Num: 19

Candidate Starts for Trustiboi_3:

(Start: 19 @1556 has 43 MA's), (30, 1745), (32, 1814), (35, 1871), (45, 2018), (81, 2426), (82, 2429),

Gene: Uzumaki_4 Start: 1520, Stop: 2500, Start Num: 19

Candidate Starts for Uzumaki_4:

(Start: 19 @1520 has 43 MA's), (27, 1691), (45, 1991), (49, 2021), (67, 2219), (83, 2429),

Gene: Zeina_4 Start: 1530, Stop: 2510, Start Num: 19

Candidate Starts for Zeina_4:

(Start: 19 @1530 has 43 MA's), (27, 1701), (45, 2001), (49, 2031), (67, 2229), (83, 2439),