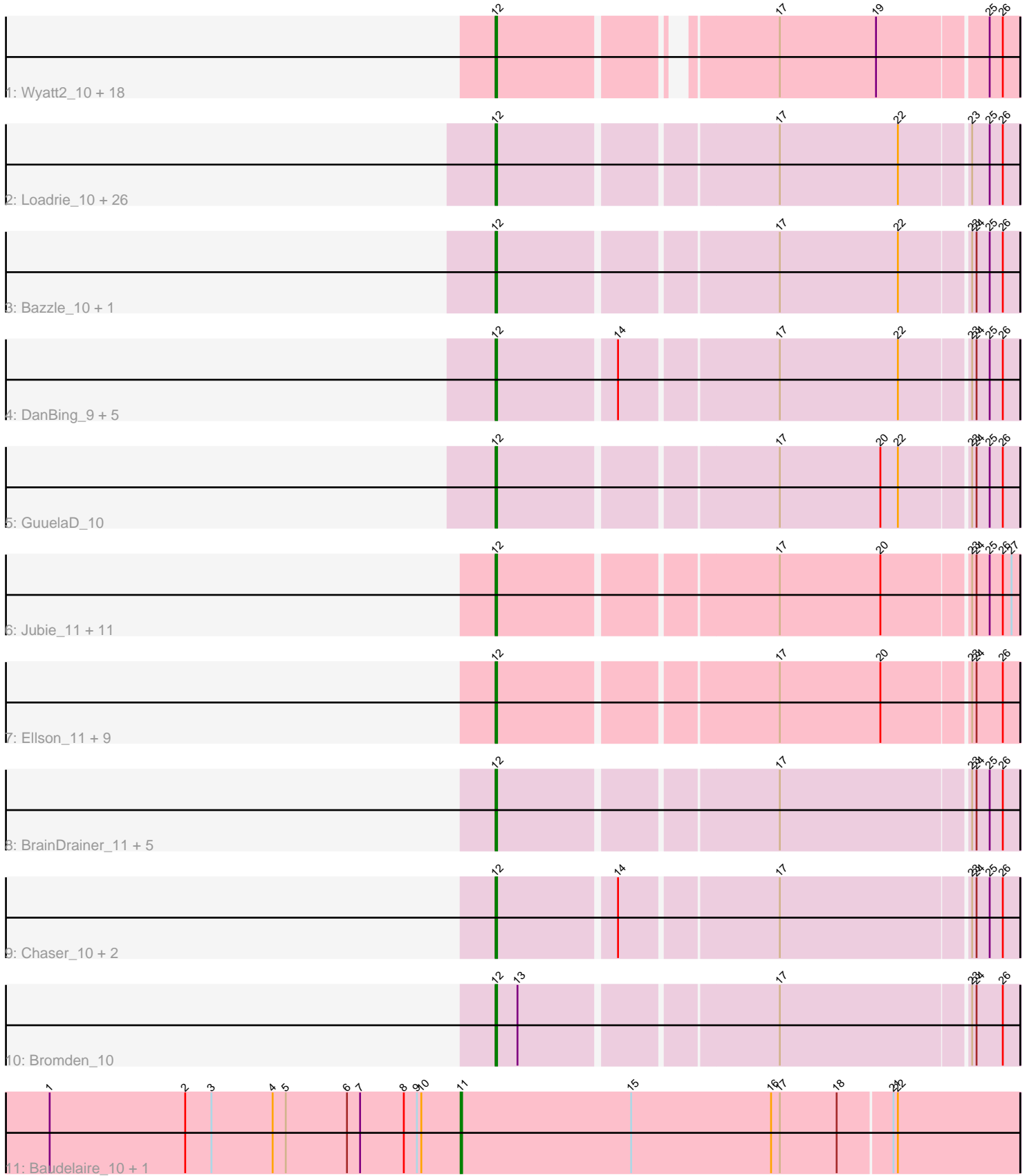


Pham 196454



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 196454 Report

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

Pham number 196454 has 89 members, 20 are drafts.

Phages represented in each track:

- Track 1 : Wyatt2_10, Zaria_10, Silverleaf_10, Appletree2_10, AvadaKedavra_10, Rose5_10, Acquire49_10, Tyson_10, LeBron_10, UPIE_10, CicholasNage_10, Enceladus_10, Halena_10, MAckerman_10, JoeDirt_10, DirkDirk_10, OhShagHennessy_10, Wamburggrxpress_10, Calm_10
- Track 2 : Loadrie_10, BigCheese_10, LilDestine_10, MkaliMitinis3_10, Faith1_10, Miley16_10, DrSeegs_10, Lewan_10, Sarshaun_10, Wigglewiggle_10, Kahlid_10, Zakai_10, Gabriela_10, Hafay_10, Vetrrix_10, Soap141_10, Nicholasp3_10, Crossroads_10, Itos_10, Winky_10, Breezona_10, Finemlucis_10, BobsGarage_10, Gardann_10, Rumpelstiltskin_10, Wilder_10, Netyap_10
- Track 3 : Bazzle_10, Archie_10
- Track 4 : DanBing_9, ZhongYanYuan_9, Tourach_10, Baoshan_9, DHan_10, Claus_10
- Track 5 : GuuelaD_10
- Track 6 : Jubie_11, Kingsolomon_11, MsGreen_11, Snenia_11, Finnry_11, Moostard_11, Clautastrophe_11, Jobypre_11, Nicholas_11, Bellis_11, Samty_11, Lumos_11
- Track 7 : Ellson_11, Krypton555_11, BourbonZero_10, LiyuLake_11, DuncansLeg_11, MiniMac_11, Lolly9_11, KirDoubleO7_9, MiniLon_11, Whirlwind_12
- Track 8 : BrainDrainer_11, FarmResident_10, Douzhi_10, Sheng711_10, PYPDinur_10, DyoEdafos_11
- Track 9 : Chaser_10, Quby_10, Douge_10
- Track 10 : Bromden_10
- Track 11 : Baudelaire_10, Aegeus_10

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

The start number called the most often in the published annotations is 12, it was called in 67 of the 69 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49_10, Appletree2_10, Archie_10, AvadaKedavra_10, Baoshan_9, Bazzle_10, Bellis_11, BigCheese_10, BobsGarage_10, BourbonZero_10, BrainDrainer_11, Breezona_10, Bromden_10, Calm_10, Chaser_10, CicholasNage_10, Claus_10, Clautastrophe_11, Crossroads_10, DHan_10,

DanBing_9, DirkDirk_10, Douge_10, Douzhi_10, DrSeegs_10, DuncansLeg_11, DyoEdafos_11, Ellson_11, Enceladus_10, Faith1_10, FarmResident_10, Finemlucis_10, Finnry_11, Gabriela_10, Gardann_10, GuuelaD_10, Hafay_10, Halena_10, Itos_10, Jobypre_11, JoeDirt_10, Jubie_11, Kahlid_10, Kingsolomon_11, KirDoubleO7_9, Krypton555_11, LeBron_10, Lewan_10, LilDestine_10, LiyuLake_11, Loadrie_10, Lolly9_11, Lumos_11, MAckerman_10, Miley16_10, MiniLon_11, MiniMac_11, MkaliMitinis3_10, Moostard_11, MsGreen_11, Netyap_10, Nicholas_11, Nicholasp3_10, OhShagHennessy_10, PYPDinur_10, Quby_10, Rose5_10, Rumpelstiltskin_10, Samty_11, Sarshaun_10, Sheng711_10, Silverleaf_10, Snenia_11, Soap141_10, Tourach_10, Tyson_10, UPIE_10, Vetrix_10, Wamburgrxpress_10, Whirlwind_12, Wigglewiggle_10, Wilder_10, Winky_10, Wyatt2_10, Zakai_10, Zaria_10, ZhongYanYuan_9,

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

-

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

- Aegeus_10, Baudelaire_10,

Summary by start number:

Start 11:

- Found in 2 of 89 (2.2%) of genes in pham
- Manual Annotations of this start: 2 of 69
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus_10 (L5), Baudelaire_10 (L5),

Start 12:

- Found in 87 of 89 (97.8%) of genes in pham
- Manual Annotations of this start: 67 of 69
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49_10 (L1), Appletree2_10 (L1), Archie_10 (L2), AvadaKedavra_10 (L1), Baoshan_9 (L2), Bazzle_10 (L2), Bellis_11 (L3), BigCheese_10 (L2), BobsGarage_10 (L2), BourbonZero_10 (L3), BrainDrainer_11 (L4), Breezona_10 (L2), Bromden_10 (L4), Calm_10 (L1), Chaser_10 (L4), CicholasNage_10 (L1), Claus_10 (L2), Clautastrophe_11 (L3), Crossroads_10 (L2), DHan_10 (L2), DanBing_9 (L2), DirkDirk_10 (L1), Douge_10 (L4), Douzhi_10 (L4), DrSeegs_10 (L2), DuncansLeg_11 (L3), DyoEdafos_11 (L4), Ellson_11 (L3), Enceladus_10 (L1), Faith1_10 (L2), FarmResident_10 (L4), Finemlucis_10 (L2), Finnry_11 (L3), Gabriela_10 (L2), Gardann_10 (L2), GuuelaD_10 (L2), Hafay_10 (L2), Halena_10 (L1), Itos_10 (L2), Jobypre_11 (L3), JoeDirt_10 (L1), Jubie_11 (L3), Kahlid_10 (L2), Kingsolomon_11 (L3), KirDoubleO7_9 (L3), Krypton555_11 (L3), LeBron_10 (L1), Lewan_10 (L2), LilDestine_10 (L2), LiyuLake_11 (L3), Loadrie_10 (L2), Lolly9_11 (L3), Lumos_11 (L3), MAckerman_10 (L1), Miley16_10 (L2), MiniLon_11 (L3), MiniMac_11 (L3), MkaliMitinis3_10 (L2), Moostard_11 (L3), MsGreen_11 (L3), Netyap_10 (L2), Nicholas_11 (L3), Nicholasp3_10 (L2), OhShagHennessy_10 (L1), PYPDinur_10 (L4), Quby_10 (L4), Rose5_10 (L1), Rumpelstiltskin_10 (L2), Samty_11 (L3), Sarshaun_10 (L2), Sheng711_10 (L4), Silverleaf_10 (L1), Snenia_11 (L3), Soap141_10 (L2), Tourach_10 (L2), Tyson_10 (L1), UPIE_10 (L1), Vetrix_10 (L2), Wamburgrxpress_10 (L1), Whirlwind_12 (L3), Wigglewiggle_10 (L2), Wilder_10 (L2), Winky_10 (L2), Wyatt2_10 (L1), Zakai_10 (L2), Zaria_10 (L1), ZhongYanYuan_9 (L2),

Summary by clusters:

There are 5 clusters represented in this pham: L4, L5, L2, L3, L1,

Info for manual annotations of cluster L1:

•Start number 12 was manually annotated 19 times for cluster L1.

Info for manual annotations of cluster L2:

•Start number 12 was manually annotated 28 times for cluster L2.

Info for manual annotations of cluster L3:

•Start number 12 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

•Start number 12 was manually annotated 4 times for cluster L4.

Info for manual annotations of cluster L5:

•Start number 11 was manually annotated 2 times for cluster L5.

Gene Information:

Gene: Acquire49_10 Start: 7710, Stop: 8033, Start Num: 12

Candidate Starts for Acquire49_10:

(Start: 12 @7710 has 67 MA's), (17, 7875), (19, 7941), (25, 8013), (26, 8022),

Gene: Aegeus_10 Start: 7298, Stop: 7678, Start Num: 11

Candidate Starts for Aegeus_10:

(1, 7016), (2, 7109), (3, 7127), (4, 7169), (5, 7178), (6, 7220), (7, 7229), (8, 7259), (9, 7268), (10, 7271), (Start: 11 @7298 has 2 MA's), (15, 7415), (16, 7511), (17, 7517), (18, 7556), (21, 7592), (22, 7595),

Gene: Appletree2_10 Start: 7684, Stop: 8007, Start Num: 12

Candidate Starts for Appletree2_10:

(Start: 12 @7684 has 67 MA's), (17, 7849), (19, 7915), (25, 7987), (26, 7996),

Gene: Archie_10 Start: 7665, Stop: 8003, Start Num: 12

Candidate Starts for Archie_10:

(Start: 12 @7665 has 67 MA's), (17, 7845), (22, 7926), (23, 7971), (24, 7974), (25, 7983), (26, 7992),

Gene: AvadaKedavra_10 Start: 7710, Stop: 8033, Start Num: 12

Candidate Starts for AvadaKedavra_10:

(Start: 12 @7710 has 67 MA's), (17, 7875), (19, 7941), (25, 8013), (26, 8022),

Gene: Baoshan_9 Start: 7520, Stop: 7858, Start Num: 12

Candidate Starts for Baoshan_9:

(Start: 12 @7520 has 67 MA's), (14, 7598), (17, 7700), (22, 7781), (23, 7826), (24, 7829), (25, 7838), (26, 7847),

Gene: Baudelaire_10 Start: 7298, Stop: 7678, Start Num: 11

Candidate Starts for Baudelaire_10:

(1, 7016), (2, 7109), (3, 7127), (4, 7169), (5, 7178), (6, 7220), (7, 7229), (8, 7259), (9, 7268), (10, 7271), (Start: 11 @7298 has 2 MA's), (15, 7415), (16, 7511), (17, 7517), (18, 7556), (21, 7592), (22, 7595),

Gene: Bazzle_10 Start: 7641, Stop: 7979, Start Num: 12

Candidate Starts for Bazzle_10:

(Start: 12 @7641 has 67 MA's), (17, 7821), (22, 7902), (23, 7947), (24, 7950), (25, 7959), (26, 7968),

Gene: Bellis_11 Start: 7840, Stop: 8178, Start Num: 12

Candidate Starts for Bellis_11:

(Start: 12 @7840 has 67 MA's), (17, 8020), (20, 8089), (23, 8146), (24, 8149), (25, 8158), (26, 8167), (27, 8173),

Gene: BigCheese_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for BigCheese_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: BobsGarage_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for BobsGarage_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: BourbonZero_10 Start: 7846, Stop: 8184, Start Num: 12

Candidate Starts for BourbonZero_10:

(Start: 12 @7846 has 67 MA's), (17, 8026), (20, 8095), (23, 8152), (24, 8155), (26, 8173),

Gene: BrainDrainer_11 Start: 7511, Stop: 7849, Start Num: 12

Candidate Starts for BrainDrainer_11:

(Start: 12 @7511 has 67 MA's), (17, 7691), (23, 7817), (24, 7820), (25, 7829), (26, 7838),

Gene: Breezona_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Breezona_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Bromden_10 Start: 7421, Stop: 7759, Start Num: 12

Candidate Starts for Bromden_10:

(Start: 12 @7421 has 67 MA's), (13, 7436), (17, 7601), (23, 7727), (24, 7730), (26, 7748),

Gene: Calm_10 Start: 7711, Stop: 8034, Start Num: 12

Candidate Starts for Calm_10:

(Start: 12 @7711 has 67 MA's), (17, 7876), (19, 7942), (25, 8014), (26, 8023),

Gene: Chaser_10 Start: 7426, Stop: 7764, Start Num: 12

Candidate Starts for Chaser_10:

(Start: 12 @7426 has 67 MA's), (14, 7504), (17, 7606), (23, 7732), (24, 7735), (25, 7744), (26, 7753),

Gene: CicholasNage_10 Start: 7711, Stop: 8034, Start Num: 12

Candidate Starts for CicholasNage_10:

(Start: 12 @7711 has 67 MA's), (17, 7876), (19, 7942), (25, 8014), (26, 8023),

Gene: Claus_10 Start: 7700, Stop: 8038, Start Num: 12

Candidate Starts for Claus_10:

(Start: 12 @7700 has 67 MA's), (14, 7778), (17, 7880), (22, 7961), (23, 8006), (24, 8009), (25, 8018), (26, 8027),

Gene: Clautastrophe_11 Start: 7844, Stop: 8182, Start Num: 12
Candidate Starts for Clautastrophe_11:
(Start: 12 @7844 has 67 MA's), (17, 8024), (20, 8093), (23, 8150), (24, 8153), (25, 8162), (26, 8171),
(27, 8177),

Gene: Crossroads_10 Start: 7692, Stop: 8030, Start Num: 12
Candidate Starts for Crossroads_10:
(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: DHan_10 Start: 7636, Stop: 7974, Start Num: 12
Candidate Starts for DHan_10:
(Start: 12 @7636 has 67 MA's), (14, 7714), (17, 7816), (22, 7897), (23, 7942), (24, 7945), (25, 7954),
(26, 7963),

Gene: DanBing_9 Start: 7519, Stop: 7857, Start Num: 12
Candidate Starts for DanBing_9:
(Start: 12 @7519 has 67 MA's), (14, 7597), (17, 7699), (22, 7780), (23, 7825), (24, 7828), (25, 7837),
(26, 7846),

Gene: DirkDirk_10 Start: 7712, Stop: 8035, Start Num: 12
Candidate Starts for DirkDirk_10:
(Start: 12 @7712 has 67 MA's), (17, 7877), (19, 7943), (25, 8015), (26, 8024),

Gene: Douge_10 Start: 7372, Stop: 7710, Start Num: 12
Candidate Starts for Douge_10:
(Start: 12 @7372 has 67 MA's), (14, 7450), (17, 7552), (23, 7678), (24, 7681), (25, 7690), (26, 7699),

Gene: Douzhi_10 Start: 7372, Stop: 7710, Start Num: 12
Candidate Starts for Douzhi_10:
(Start: 12 @7372 has 67 MA's), (17, 7552), (23, 7678), (24, 7681), (25, 7690), (26, 7699),

Gene: DrSeegs_10 Start: 7692, Stop: 8030, Start Num: 12
Candidate Starts for DrSeegs_10:
(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: DuncansLeg_11 Start: 7848, Stop: 8186, Start Num: 12
Candidate Starts for DuncansLeg_11:
(Start: 12 @7848 has 67 MA's), (17, 8028), (20, 8097), (23, 8154), (24, 8157), (26, 8175),

Gene: DyoEdafos_11 Start: 7582, Stop: 7920, Start Num: 12
Candidate Starts for DyoEdafos_11:
(Start: 12 @7582 has 67 MA's), (17, 7762), (23, 7888), (24, 7891), (25, 7900), (26, 7909),

Gene: Ellson_11 Start: 7856, Stop: 8194, Start Num: 12
Candidate Starts for Ellson_11:
(Start: 12 @7856 has 67 MA's), (17, 8036), (20, 8105), (23, 8162), (24, 8165), (26, 8183),

Gene: Enceladus_10 Start: 7712, Stop: 8035, Start Num: 12
Candidate Starts for Enceladus_10:
(Start: 12 @7712 has 67 MA's), (17, 7877), (19, 7943), (25, 8015), (26, 8024),

Gene: Faith1_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Faith1_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: FarmResident_10 Start: 7417, Stop: 7755, Start Num: 12

Candidate Starts for FarmResident_10:

(Start: 12 @7417 has 67 MA's), (17, 7597), (23, 7723), (24, 7726), (25, 7735), (26, 7744),

Gene: Finemlucis_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Finemlucis_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Finnry_11 Start: 7841, Stop: 8179, Start Num: 12

Candidate Starts for Finnry_11:

(Start: 12 @7841 has 67 MA's), (17, 8021), (20, 8090), (23, 8147), (24, 8150), (25, 8159), (26, 8168), (27, 8174),

Gene: Gabriela_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Gabriela_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Gardann_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Gardann_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: GuuelaD_10 Start: 7725, Stop: 8063, Start Num: 12

Candidate Starts for GuuelaD_10:

(Start: 12 @7725 has 67 MA's), (17, 7905), (20, 7974), (22, 7986), (23, 8031), (24, 8034), (25, 8043), (26, 8052),

Gene: Hafay_10 Start: 7725, Stop: 8063, Start Num: 12

Candidate Starts for Hafay_10:

(Start: 12 @7725 has 67 MA's), (17, 7905), (22, 7986), (23, 8031), (25, 8043), (26, 8052),

Gene: Halena_10 Start: 7711, Stop: 8034, Start Num: 12

Candidate Starts for Halena_10:

(Start: 12 @7711 has 67 MA's), (17, 7876), (19, 7942), (25, 8014), (26, 8023),

Gene: Itos_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Itos_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Jobypre_11 Start: 7844, Stop: 8182, Start Num: 12

Candidate Starts for Jobypre_11:

(Start: 12 @7844 has 67 MA's), (17, 8024), (20, 8093), (23, 8150), (24, 8153), (25, 8162), (26, 8171), (27, 8177),

Gene: JoeDirt_10 Start: 7711, Stop: 8034, Start Num: 12

Candidate Starts for JoeDirt_10:

(Start: 12 @7711 has 67 MA's), (17, 7876), (19, 7942), (25, 8014), (26, 8023),

Gene: Jubie_11 Start: 7844, Stop: 8182, Start Num: 12

Candidate Starts for Jubie_11:

(Start: 12 @7844 has 67 MA's), (17, 8024), (20, 8093), (23, 8150), (24, 8153), (25, 8162), (26, 8171), (27, 8177),

Gene: Kahlid_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Kahlid_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Kingsolomon_11 Start: 7844, Stop: 8182, Start Num: 12

Candidate Starts for Kingsolomon_11:

(Start: 12 @7844 has 67 MA's), (17, 8024), (20, 8093), (23, 8150), (24, 8153), (25, 8162), (26, 8171), (27, 8177),

Gene: KirDoubleO7_9 Start: 7857, Stop: 8195, Start Num: 12

Candidate Starts for KirDoubleO7_9:

(Start: 12 @7857 has 67 MA's), (17, 8037), (20, 8106), (23, 8163), (24, 8166), (26, 8184),

Gene: Krypton555_11 Start: 7833, Stop: 8171, Start Num: 12

Candidate Starts for Krypton555_11:

(Start: 12 @7833 has 67 MA's), (17, 8013), (20, 8082), (23, 8139), (24, 8142), (26, 8160),

Gene: LeBron_10 Start: 7711, Stop: 8034, Start Num: 12

Candidate Starts for LeBron_10:

(Start: 12 @7711 has 67 MA's), (17, 7876), (19, 7942), (25, 8014), (26, 8023),

Gene: Lewan_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Lewan_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: LilDestine_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for LilDestine_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: LiyuLake_11 Start: 7848, Stop: 8186, Start Num: 12

Candidate Starts for LiyuLake_11:

(Start: 12 @7848 has 67 MA's), (17, 8028), (20, 8097), (23, 8154), (24, 8157), (26, 8175),

Gene: Loadrie_10 Start: 7725, Stop: 8063, Start Num: 12

Candidate Starts for Loadrie_10:

(Start: 12 @7725 has 67 MA's), (17, 7905), (22, 7986), (23, 8031), (25, 8043), (26, 8052),

Gene: Lolly9_11 Start: 7851, Stop: 8189, Start Num: 12

Candidate Starts for Lolly9_11:

(Start: 12 @7851 has 67 MA's), (17, 8031), (20, 8100), (23, 8157), (24, 8160), (26, 8178),

Gene: Lumos_11 Start: 7844, Stop: 8182, Start Num: 12

Candidate Starts for Lumos_11:

(Start: 12 @7844 has 67 MA's), (17, 8024), (20, 8093), (23, 8150), (24, 8153), (25, 8162), (26, 8171), (27, 8177),

Gene: MAckerman_10 Start: 7710, Stop: 8033, Start Num: 12

Candidate Starts for MAckerman_10:

(Start: 12 @7710 has 67 MA's), (17, 7875), (19, 7941), (25, 8013), (26, 8022),

Gene: Miley16_10 Start: 7692, Stop: 8030, Start Num: 12
Candidate Starts for Miley16_10:
(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: MiniLon_11 Start: 7851, Stop: 8189, Start Num: 12
Candidate Starts for MiniLon_11:
(Start: 12 @7851 has 67 MA's), (17, 8031), (20, 8100), (23, 8157), (24, 8160), (26, 8178),

Gene: MiniMac_11 Start: 7852, Stop: 8190, Start Num: 12
Candidate Starts for MiniMac_11:
(Start: 12 @7852 has 67 MA's), (17, 8032), (20, 8101), (23, 8158), (24, 8161), (26, 8179),

Gene: MkaliMitinis3_10 Start: 7692, Stop: 8030, Start Num: 12
Candidate Starts for MkaliMitinis3_10:
(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Moostard_11 Start: 7840, Stop: 8178, Start Num: 12
Candidate Starts for Moostard_11:
(Start: 12 @7840 has 67 MA's), (17, 8020), (20, 8089), (23, 8146), (24, 8149), (25, 8158), (26, 8167),
(27, 8173),

Gene: MsGreen_11 Start: 7844, Stop: 8182, Start Num: 12
Candidate Starts for MsGreen_11:
(Start: 12 @7844 has 67 MA's), (17, 8024), (20, 8093), (23, 8150), (24, 8153), (25, 8162), (26, 8171),
(27, 8177),

Gene: Netyap_10 Start: 7692, Stop: 8030, Start Num: 12
Candidate Starts for Netyap_10:
(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Nicholas_11 Start: 7844, Stop: 8182, Start Num: 12
Candidate Starts for Nicholas_11:
(Start: 12 @7844 has 67 MA's), (17, 8024), (20, 8093), (23, 8150), (24, 8153), (25, 8162), (26, 8171),
(27, 8177),

Gene: Nicholasp3_10 Start: 7692, Stop: 8030, Start Num: 12
Candidate Starts for Nicholasp3_10:
(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: OhShagHennessy_10 Start: 7684, Stop: 8007, Start Num: 12
Candidate Starts for OhShagHennessy_10:
(Start: 12 @7684 has 67 MA's), (17, 7849), (19, 7915), (25, 7987), (26, 7996),

Gene: PYPDinur_10 Start: 7372, Stop: 7710, Start Num: 12
Candidate Starts for PYPDinur_10:
(Start: 12 @7372 has 67 MA's), (17, 7552), (23, 7678), (24, 7681), (25, 7690), (26, 7699),

Gene: Quby_10 Start: 7371, Stop: 7709, Start Num: 12
Candidate Starts for Quby_10:
(Start: 12 @7371 has 67 MA's), (14, 7449), (17, 7551), (23, 7677), (24, 7680), (25, 7689), (26, 7698),

Gene: Rose5_10 Start: 7710, Stop: 8033, Start Num: 12
Candidate Starts for Rose5_10:

(Start: 12 @7710 has 67 MA's), (17, 7875), (19, 7941), (25, 8013), (26, 8022),

Gene: Rumpelstiltskin_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Rumpelstiltskin_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Samty_11 Start: 7840, Stop: 8178, Start Num: 12

Candidate Starts for Samty_11:

(Start: 12 @7840 has 67 MA's), (17, 8020), (20, 8089), (23, 8146), (24, 8149), (25, 8158), (26, 8167), (27, 8173),

Gene: Sarshaun_10 Start: 7725, Stop: 8063, Start Num: 12

Candidate Starts for Sarshaun_10:

(Start: 12 @7725 has 67 MA's), (17, 7905), (22, 7986), (23, 8031), (25, 8043), (26, 8052),

Gene: Sheng711_10 Start: 7372, Stop: 7710, Start Num: 12

Candidate Starts for Sheng711_10:

(Start: 12 @7372 has 67 MA's), (17, 7552), (23, 7678), (24, 7681), (25, 7690), (26, 7699),

Gene: Silverleaf_10 Start: 7710, Stop: 8033, Start Num: 12

Candidate Starts for Silverleaf_10:

(Start: 12 @7710 has 67 MA's), (17, 7875), (19, 7941), (25, 8013), (26, 8022),

Gene: Snenia_11 Start: 7845, Stop: 8183, Start Num: 12

Candidate Starts for Snenia_11:

(Start: 12 @7845 has 67 MA's), (17, 8025), (20, 8094), (23, 8151), (24, 8154), (25, 8163), (26, 8172), (27, 8178),

Gene: Soap141_10 Start: 7725, Stop: 8063, Start Num: 12

Candidate Starts for Soap141_10:

(Start: 12 @7725 has 67 MA's), (17, 7905), (22, 7986), (23, 8031), (25, 8043), (26, 8052),

Gene: Tourach_10 Start: 7705, Stop: 8043, Start Num: 12

Candidate Starts for Tourach_10:

(Start: 12 @7705 has 67 MA's), (14, 7783), (17, 7885), (22, 7966), (23, 8011), (24, 8014), (25, 8023), (26, 8032),

Gene: Tyson_10 Start: 7710, Stop: 8033, Start Num: 12

Candidate Starts for Tyson_10:

(Start: 12 @7710 has 67 MA's), (17, 7875), (19, 7941), (25, 8013), (26, 8022),

Gene: UPIE_10 Start: 7708, Stop: 8031, Start Num: 12

Candidate Starts for UPIE_10:

(Start: 12 @7708 has 67 MA's), (17, 7873), (19, 7939), (25, 8011), (26, 8020),

Gene: Vetrix_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Vetrix_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Wamburgexpress_10 Start: 7710, Stop: 8033, Start Num: 12

Candidate Starts for Wamburgexpress_10:

(Start: 12 @7710 has 67 MA's), (17, 7875), (19, 7941), (25, 8013), (26, 8022),

Gene: Whirlwind_12 Start: 7838, Stop: 8176, Start Num: 12

Candidate Starts for Whirlwind_12:

(Start: 12 @7838 has 67 MA's), (17, 8018), (20, 8087), (23, 8144), (24, 8147), (26, 8165),

Gene: Wigglewigggle_10 Start: 7725, Stop: 8063, Start Num: 12

Candidate Starts for Wigglewigggle_10:

(Start: 12 @7725 has 67 MA's), (17, 7905), (22, 7986), (23, 8031), (25, 8043), (26, 8052),

Gene: Wilder_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Wilder_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Winky_10 Start: 7692, Stop: 8030, Start Num: 12

Candidate Starts for Winky_10:

(Start: 12 @7692 has 67 MA's), (17, 7872), (22, 7953), (23, 7998), (25, 8010), (26, 8019),

Gene: Wyatt2_10 Start: 7710, Stop: 8033, Start Num: 12

Candidate Starts for Wyatt2_10:

(Start: 12 @7710 has 67 MA's), (17, 7875), (19, 7941), (25, 8013), (26, 8022),

Gene: Zakai_10 Start: 7680, Stop: 8018, Start Num: 12

Candidate Starts for Zakai_10:

(Start: 12 @7680 has 67 MA's), (17, 7860), (22, 7941), (23, 7986), (25, 7998), (26, 8007),

Gene: Zaria_10 Start: 7711, Stop: 8034, Start Num: 12

Candidate Starts for Zaria_10:

(Start: 12 @7711 has 67 MA's), (17, 7876), (19, 7942), (25, 8014), (26, 8023),

Gene: ZhongYanYuan_9 Start: 7520, Stop: 7858, Start Num: 12

Candidate Starts for ZhongYanYuan_9:

(Start: 12 @7520 has 67 MA's), (14, 7598), (17, 7700), (22, 7781), (23, 7826), (24, 7829), (25, 7838),
(26, 7847),