

Pham 196492



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 196492 Report

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

Pham number 196492 has 76 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Sejanus_84
- Track 2 : UmaThurman_37
- Track 3 : Bunker_39
- Track 4 : BackstagePass_50
- Track 5 : Bowser_41
- Track 6 : MagicMan_41, Eyes_39
- Track 7 : ZAYM_43
- Track 8 : Schnabeltier_41
- Track 9 : EpicDab_20
- Track 10 : Nyceirae_38
- Track 11 : BlueFeather_20
- Track 12 : Zaheer_44, Petra_40, Zarbodnamra_42, Obliviate_39
- Track 13 : Necropolis_32, Juniormint_32, Fishburne_32, StevieRay_32, Langerak_32, Majeke_32, Donovan_32, Willsammy_31, Bunnies_32, Venti_32, Thespis_32, Mangethe_32, Atcoo_32, Zilizebeth_32, Kari_32, Phegasus_32, Arib1_32, FirstPlacePfu_32
- Track 14 : Bogie_34, KilKor_32, Brusacoram_32, Dynamo_32, Ksquared_32, Phalm_32, Pygmy_34, Techage_32, Phineas_32, Jebeks_33, Camster_32, Malithi_32, Sonah_32, CactusJack_32, StressBall_32, Glaske_32, Vidya_32, Polkaroo_32, Bartholomew_31, Shipwreck_34, GreaseLightnin_32, Jung_31, Megiddo_32, HUHilltop_32
- Track 15 : BigNuz_35
- Track 16 : Nazo_36
- Track 17 : Purky_39
- Track 18 : Ubuntu_50, LilHazelNut_50, Hadrien_50, Forge_48, Webster2_50, Ein37_50, Amymech_50, DeepSoil15_50, Amochick_50, Daegal_52, Gancho_49, Luke_50, Evanesce_49, Kinbote_50
- Track 19 : OBUpride_50

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 42 of the 71 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amochick_50, Amymech_50, Bartholomew_31, Bogie_34, Brusacoram_32, CactusJack_32, Camster_32, Daegal_52, DeepSoil15_50, Dynamo_32, Ein37_50, Evanesce_49, Forge_48, Gancho_49, Glaske_32, GreaseLightnin_32, HUHilltop_32, Hadrien_50, Jebeks_33, Jung_31, KilKor_32, Kinbote_50, Ksquared_32, LilHazelnut_50, Luke_50, Malithi_32, Megiddo_32, Nazo_36, OBUpride_50, Obliviate_39, Petra_40, Phalm_32, Phineas_32, Polkaroo_32, Pygmy_34, Shipwreck_34, Sonah_32, StressBall_32, Techage_32, Ubuntu_50, Vidya_32, Webster2_50, Zaheer_44, Zarbodnamra_42,

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

- Arib1_32, Atcoo_32, BigNuz_35, Bunnies_32, Donovan_32, FirstPlacePfu_32, Fishburne_32, Juniormint_32, Kari_32, Langerak_32, Majeke_32, Mangethe_32, Necropolis_32, Phegasus_32, StevieRay_32, Thespis_32, UmaThurman_37, Venti_32, Willsammy_31, Zilizebeth_32,

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

- BackstagePass_50, BlueFeather_20, Bowser_41, Bunker_39, EpicDab_20, Eyes_39, MagicMan_41, Nyceirae_38, Purky_39, Schnabeltier_41, Sejanus_84, ZAYM_43,

Summary by start number:

Start 8:

- Found in 1 of 76 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueFeather_20 (FE),

Start 13:

- Found in 1 of 76 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nyceirae_38 (DT),

Start 15:

- Found in 45 of 76 (59.2%) of genes in pham
- Manual Annotations of this start: 19 of 71
- Called 44.4% of time when present
- Phage (with cluster) where this start called: Arib1_32 (P1), Atcoo_32 (P1), BigNuz_35 (P4), Bunnies_32 (P1), Donovan_32 (P1), FirstPlacePfu_32 (P1), Fishburne_32 (P1), Juniormint_32 (P1), Kari_32 (P1), Langerak_32 (P1), Majeke_32 (P1), Mangethe_32 (P1), Necropolis_32 (P1), Phegasus_32 (P1), StevieRay_32 (P1), Thespis_32 (P1), UmaThurman_37 (CV), Venti_32 (P1), Willsammy_31 (P1), Zilizebeth_32 (P1),

Start 16:

- Found in 5 of 76 (6.6%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 20.0% of time when present
- Phage (with cluster) where this start called: EpicDab_20 (DM),

Start 17:

- Found in 2 of 76 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Sejanus_84 (AD),

Start 18:

- Found in 2 of 76 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bunker_39 (DB), ZAYM_43 (DB),

Start 19:

- Found in 64 of 76 (84.2%) of genes in pham
- Manual Annotations of this start: 42 of 71
- Called 68.8% of time when present
- Phage (with cluster) where this start called: Amochick_50 (Q), Amymech_50 (Q), Bartholomew_31 (P1), Bogie_34 (P1), Brusacoram_32 (P1), CactusJack_32 (P1), Camster_32 (P1), Daegal_52 (Q), DeepSoil15_50 (Q), Dynamo_32 (P1), Ein37_50 (Q), Evanesce_49 (Q), Forge_48 (Q), Gancho_49 (Q), Glaske_32 (P1), GreaseLightnin_32 (P1), HUHilltop_32 (P1), Hadrien_50 (Q), Jebeks_33 (P1), Jung_31 (P1), KilKor_32 (P1), Kinbote_50 (Q), Ksqared_32 (P1), LilHazelNut_50 (Q), Luke_50 (Q), Malithi_32 (P1), Megiddo_32 (P1), Nazo_36 (P4), OBUpride_50 (Q), Obliviate_39 (CV), Petra_40 (CV), Phalm_32 (P1), Phineas_32 (P1), Polkaroo_32 (P1), Pygmy_34 (P1), Shipwreck_34 (P1), Sonah_32 (P1), StressBall_32 (P1), Techage_32 (P1), Ubuntu_50 (Q), Vidya_32 (P1), Webster2_50 (Q), Zaheer_44 (FF), Zarbodnamra_42 (CV),

Start 20:

- Found in 1 of 76 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Purky_39 (P6),

Start 21:

- Found in 5 of 76 (6.6%) of genes in pham
- Manual Annotations of this start: 4 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BackstagePass_50 (DB), Bowser_41 (DB), Eyes_39 (DB), MagicMan_41 (DB), Schnabeltier_41 (DB),

Summary by clusters:

There are 11 clusters represented in this pham: P1, P6, AD, P4, DB, Q, DM, FE, FF, DT, CV,

Info for manual annotations of cluster AD:

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

Info for manual annotations of cluster CV:

- Start number 15 was manually annotated 1 time for cluster CV.
- Start number 19 was manually annotated 3 times for cluster CV.

Info for manual annotations of cluster DB:

- Start number 18 was manually annotated 1 time for cluster DB.
- Start number 21 was manually annotated 4 times for cluster DB.

Info for manual annotations of cluster DM:

- Start number 16 was manually annotated 1 time for cluster DM.

Info for manual annotations of cluster DT:

- Start number 13 was manually annotated 1 time for cluster DT.

Info for manual annotations of cluster FE:

- Start number 8 was manually annotated 1 time for cluster FE.

Info for manual annotations of cluster FF:

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

Info for manual annotations of cluster P1:

- Start number 15 was manually annotated 17 times for cluster P1.
- Start number 19 was manually annotated 22 times for cluster P1.

Info for manual annotations of cluster P4:

- Start number 15 was manually annotated 1 time for cluster P4.
- Start number 19 was manually annotated 1 time for cluster P4.

Info for manual annotations of cluster P6:

- Start number 20 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster Q:

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

Gene Information:

Gene: Amochick_50 Start: 36955, Stop: 37152, Start Num: 19

Candidate Starts for Amochick_50:

(Start: 19 @36955 has 42 MA's), (25, 37018),

Gene: Amymech_50 Start: 36949, Stop: 37146, Start Num: 19

Candidate Starts for Amymech_50:

(Start: 19 @36949 has 42 MA's), (25, 37012),

Gene: Arib1_32 Start: 27470, Stop: 27715, Start Num: 15

Candidate Starts for Arib1_32:

(11, 27452), (Start: 15 @27470 has 19 MA's), (Start: 19 @27482 has 42 MA's),

Gene: Atcoo_32 Start: 27951, Stop: 28196, Start Num: 15

Candidate Starts for Atcoo_32:

(11, 27933), (Start: 15 @27951 has 19 MA's), (Start: 19 @27963 has 42 MA's),

Gene: BackstagePass_50 Start: 34306, Stop: 34112, Start Num: 21

Candidate Starts for BackstagePass_50:

(Start: 16 @34321 has 1 MA's), (Start: 21 @34306 has 4 MA's), (24, 34267), (29, 34222),

Gene: Bartholomew_31 Start: 27476, Stop: 27709, Start Num: 19
Candidate Starts for Bartholomew_31:
(11, 27446), (Start: 15 @27464 has 19 MA's), (Start: 19 @27476 has 42 MA's),

Gene: BigNuz_35 Start: 29592, Stop: 29837, Start Num: 15
Candidate Starts for BigNuz_35:
(11, 29574), (12, 29586), (Start: 15 @29592 has 19 MA's), (Start: 19 @29604 has 42 MA's),

Gene: BlueFeather_20 Start: 14165, Stop: 14407, Start Num: 8
Candidate Starts for BlueFeather_20:
(Start: 8 @14165 has 1 MA's), (10, 14177), (14, 14195),

Gene: Bogie_34 Start: 29259, Stop: 29492, Start Num: 19
Candidate Starts for Bogie_34:
(11, 29229), (Start: 15 @29247 has 19 MA's), (Start: 19 @29259 has 42 MA's),

Gene: Bowser_41 Start: 32656, Stop: 32847, Start Num: 21
Candidate Starts for Bowser_41:
(Start: 16 @32641 has 1 MA's), (Start: 21 @32656 has 4 MA's), (29, 32740), (31, 32755), (33, 32809),

Gene: Brusacoram_32 Start: 27469, Stop: 27702, Start Num: 19
Candidate Starts for Brusacoram_32:
(11, 27439), (Start: 15 @27457 has 19 MA's), (Start: 19 @27469 has 42 MA's),

Gene: Bunker_39 Start: 31881, Stop: 32090, Start Num: 18
Candidate Starts for Bunker_39:
(10, 31854), (Start: 18 @31881 has 1 MA's), (35, 32055),

Gene: Bunnies_32 Start: 27478, Stop: 27723, Start Num: 15
Candidate Starts for Bunnies_32:
(11, 27460), (Start: 15 @27478 has 19 MA's), (Start: 19 @27490 has 42 MA's),

Gene: CactusJack_32 Start: 27733, Stop: 27966, Start Num: 19
Candidate Starts for CactusJack_32:
(11, 27703), (Start: 15 @27721 has 19 MA's), (Start: 19 @27733 has 42 MA's),

Gene: Camster_32 Start: 27506, Stop: 27739, Start Num: 19
Candidate Starts for Camster_32:
(11, 27476), (Start: 15 @27494 has 19 MA's), (Start: 19 @27506 has 42 MA's),

Gene: Daegal_52 Start: 37533, Stop: 37730, Start Num: 19
Candidate Starts for Daegal_52:
(Start: 19 @37533 has 42 MA's), (25, 37596),

Gene: DeepSoil15_50 Start: 36949, Stop: 37146, Start Num: 19
Candidate Starts for DeepSoil15_50:
(Start: 19 @36949 has 42 MA's), (25, 37012),

Gene: Donovan_32 Start: 27486, Stop: 27731, Start Num: 15
Candidate Starts for Donovan_32:
(11, 27468), (Start: 15 @27486 has 19 MA's), (Start: 19 @27498 has 42 MA's),

Gene: Dynamo_32 Start: 27887, Stop: 28120, Start Num: 19

Candidate Starts for Dynamo_32:
(11, 27857), (Start: 15 @27875 has 19 MA's), (Start: 19 @27887 has 42 MA's),

Gene: Ein37_50 Start: 36949, Stop: 37146, Start Num: 19
Candidate Starts for Ein37_50:
(Start: 19 @36949 has 42 MA's), (25, 37012),

Gene: EpicDab_20 Start: 14839, Stop: 15075, Start Num: 16
Candidate Starts for EpicDab_20:
(Start: 16 @14839 has 1 MA's), (22, 14875), (23, 14884), (30, 14956),

Gene: Evanesce_49 Start: 36949, Stop: 37146, Start Num: 19
Candidate Starts for Evanesce_49:
(Start: 19 @36949 has 42 MA's), (25, 37012),

Gene: Eyes_39 Start: 32432, Stop: 32626, Start Num: 21
Candidate Starts for Eyes_39:
(Start: 16 @32417 has 1 MA's), (Start: 21 @32432 has 4 MA's), (29, 32516),

Gene: FirstPlacePfu_32 Start: 27496, Stop: 27741, Start Num: 15
Candidate Starts for FirstPlacePfu_32:
(11, 27478), (Start: 15 @27496 has 19 MA's), (Start: 19 @27508 has 42 MA's),

Gene: Fishburne_32 Start: 27464, Stop: 27709, Start Num: 15
Candidate Starts for Fishburne_32:
(11, 27446), (Start: 15 @27464 has 19 MA's), (Start: 19 @27476 has 42 MA's),

Gene: Forge_48 Start: 36949, Stop: 37146, Start Num: 19
Candidate Starts for Forge_48:
(Start: 19 @36949 has 42 MA's), (25, 37012),

Gene: Gancho_49 Start: 36672, Stop: 36869, Start Num: 19
Candidate Starts for Gancho_49:
(Start: 19 @36672 has 42 MA's), (25, 36735),

Gene: Glaske_32 Start: 27733, Stop: 27966, Start Num: 19
Candidate Starts for Glaske_32:
(11, 27703), (Start: 15 @27721 has 19 MA's), (Start: 19 @27733 has 42 MA's),

Gene: GreaseLightnin_32 Start: 27725, Stop: 27958, Start Num: 19
Candidate Starts for GreaseLightnin_32:
(11, 27695), (Start: 15 @27713 has 19 MA's), (Start: 19 @27725 has 42 MA's),

Gene: HUHilltop_32 Start: 27509, Stop: 27742, Start Num: 19
Candidate Starts for HUHilltop_32:
(11, 27479), (Start: 15 @27497 has 19 MA's), (Start: 19 @27509 has 42 MA's),

Gene: Hadrien_50 Start: 36949, Stop: 37146, Start Num: 19
Candidate Starts for Hadrien_50:
(Start: 19 @36949 has 42 MA's), (25, 37012),

Gene: Jebeks_33 Start: 27461, Stop: 27694, Start Num: 19
Candidate Starts for Jebeks_33:

(11, 27431), (Start: 15 @27449 has 19 MA's), (Start: 19 @27461 has 42 MA's),

Gene: Jung_31 Start: 27440, Stop: 27673, Start Num: 19

Candidate Starts for Jung_31:

(11, 27410), (Start: 15 @27428 has 19 MA's), (Start: 19 @27440 has 42 MA's),

Gene: Juniormint_32 Start: 27500, Stop: 27745, Start Num: 15

Candidate Starts for Juniormint_32:

(11, 27482), (Start: 15 @27500 has 19 MA's), (Start: 19 @27512 has 42 MA's),

Gene: Kari_32 Start: 27461, Stop: 27706, Start Num: 15

Candidate Starts for Kari_32:

(11, 27443), (Start: 15 @27461 has 19 MA's), (Start: 19 @27473 has 42 MA's),

Gene: KilKor_32 Start: 27733, Stop: 27966, Start Num: 19

Candidate Starts for KilKor_32:

(11, 27703), (Start: 15 @27721 has 19 MA's), (Start: 19 @27733 has 42 MA's),

Gene: Kinbote_50 Start: 36949, Stop: 37146, Start Num: 19

Candidate Starts for Kinbote_50:

(Start: 19 @36949 has 42 MA's), (25, 37012),

Gene: Ksquared_32 Start: 27490, Stop: 27723, Start Num: 19

Candidate Starts for Ksquared_32:

(11, 27460), (Start: 15 @27478 has 19 MA's), (Start: 19 @27490 has 42 MA's),

Gene: Langerak_32 Start: 27480, Stop: 27725, Start Num: 15

Candidate Starts for Langerak_32:

(11, 27462), (Start: 15 @27480 has 19 MA's), (Start: 19 @27492 has 42 MA's),

Gene: LilHazelnut_50 Start: 36949, Stop: 37146, Start Num: 19

Candidate Starts for LilHazelnut_50:

(Start: 19 @36949 has 42 MA's), (25, 37012),

Gene: Luke_50 Start: 36904, Stop: 37101, Start Num: 19

Candidate Starts for Luke_50:

(Start: 19 @36904 has 42 MA's), (25, 36967),

Gene: MagicMan_41 Start: 32979, Stop: 33173, Start Num: 21

Candidate Starts for MagicMan_41:

(Start: 16 @32964 has 1 MA's), (Start: 21 @32979 has 4 MA's), (29, 33063),

Gene: Majeke_32 Start: 27502, Stop: 27747, Start Num: 15

Candidate Starts for Majeke_32:

(11, 27484), (Start: 15 @27502 has 19 MA's), (Start: 19 @27514 has 42 MA's),

Gene: Malithi_32 Start: 27399, Stop: 27632, Start Num: 19

Candidate Starts for Malithi_32:

(11, 27369), (Start: 15 @27387 has 19 MA's), (Start: 19 @27399 has 42 MA's),

Gene: Mangethe_32 Start: 27502, Stop: 27747, Start Num: 15

Candidate Starts for Mangethe_32:

(11, 27484), (Start: 15 @27502 has 19 MA's), (Start: 19 @27514 has 42 MA's),

Gene: Megiddo_32 Start: 27733, Stop: 27966, Start Num: 19
Candidate Starts for Megiddo_32:
(11, 27703), (Start: 15 @27721 has 19 MA's), (Start: 19 @27733 has 42 MA's),

Gene: Nazo_36 Start: 29606, Stop: 29839, Start Num: 19
Candidate Starts for Nazo_36:
(11, 29576), (12, 29588), (Start: 15 @29594 has 19 MA's), (Start: 19 @29606 has 42 MA's),

Gene: Necropolis_32 Start: 27461, Stop: 27706, Start Num: 15
Candidate Starts for Necropolis_32:
(11, 27443), (Start: 15 @27461 has 19 MA's), (Start: 19 @27473 has 42 MA's),

Gene: Nyceirae_38 Start: 30354, Stop: 30581, Start Num: 13
Candidate Starts for Nyceirae_38:
(6, 30303), (9, 30327), (Start: 13 @30354 has 1 MA's), (Start: 17 @30363 has 1 MA's), (30, 30477),
(32, 30495),

Gene: OBUpride_50 Start: 36945, Stop: 37142, Start Num: 19
Candidate Starts for OBUpride_50:
(Start: 19 @36945 has 42 MA's), (25, 37008), (27, 37017), (28, 37032),

Gene: Obliviate_39 Start: 31330, Stop: 31524, Start Num: 19
Candidate Starts for Obliviate_39:
(Start: 19 @31330 has 42 MA's),

Gene: Petra_40 Start: 31689, Stop: 31883, Start Num: 19
Candidate Starts for Petra_40:
(Start: 19 @31689 has 42 MA's),

Gene: Phalm_32 Start: 27733, Stop: 27966, Start Num: 19
Candidate Starts for Phalm_32:
(11, 27703), (Start: 15 @27721 has 19 MA's), (Start: 19 @27733 has 42 MA's),

Gene: Phegasus_32 Start: 27469, Stop: 27714, Start Num: 15
Candidate Starts for Phegasus_32:
(11, 27451), (Start: 15 @27469 has 19 MA's), (Start: 19 @27481 has 42 MA's),

Gene: Phineas_32 Start: 27847, Stop: 28080, Start Num: 19
Candidate Starts for Phineas_32:
(11, 27817), (Start: 15 @27835 has 19 MA's), (Start: 19 @27847 has 42 MA's),

Gene: Polkaroo_32 Start: 27490, Stop: 27723, Start Num: 19
Candidate Starts for Polkaroo_32:
(11, 27460), (Start: 15 @27478 has 19 MA's), (Start: 19 @27490 has 42 MA's),

Gene: Purky_39 Start: 30247, Stop: 30462, Start Num: 20
Candidate Starts for Purky_39:
(11, 30217), (Start: 20 @30247 has 1 MA's), (31, 30355),

Gene: Pygmy_34 Start: 29315, Stop: 29548, Start Num: 19
Candidate Starts for Pygmy_34:
(11, 29285), (Start: 15 @29303 has 19 MA's), (Start: 19 @29315 has 42 MA's),

Gene: Schnabeltier_41 Start: 32611, Stop: 32805, Start Num: 21

Candidate Starts for Schnabeltier_41:

(Start: 21 @32611 has 4 MA's), (24, 32650), (29, 32695),

Gene: Sejanus_84 Start: 57638, Stop: 57847, Start Num: 17

Candidate Starts for Sejanus_84:

(3, 57539), (5, 57578), (Start: 17 @57638 has 1 MA's), (34, 57815),

Gene: Shipwreck_34 Start: 29290, Stop: 29523, Start Num: 19

Candidate Starts for Shipwreck_34:

(11, 29260), (Start: 15 @29278 has 19 MA's), (Start: 19 @29290 has 42 MA's),

Gene: Sonah_32 Start: 27462, Stop: 27695, Start Num: 19

Candidate Starts for Sonah_32:

(11, 27432), (Start: 15 @27450 has 19 MA's), (Start: 19 @27462 has 42 MA's),

Gene: StevieRay_32 Start: 27429, Stop: 27674, Start Num: 15

Candidate Starts for StevieRay_32:

(11, 27411), (Start: 15 @27429 has 19 MA's), (Start: 19 @27441 has 42 MA's),

Gene: StressBall_32 Start: 27733, Stop: 27966, Start Num: 19

Candidate Starts for StressBall_32:

(11, 27703), (Start: 15 @27721 has 19 MA's), (Start: 19 @27733 has 42 MA's),

Gene: Techage_32 Start: 27499, Stop: 27732, Start Num: 19

Candidate Starts for Techage_32:

(11, 27469), (Start: 15 @27487 has 19 MA's), (Start: 19 @27499 has 42 MA's),

Gene: Thespis_32 Start: 27457, Stop: 27702, Start Num: 15

Candidate Starts for Thespis_32:

(11, 27439), (Start: 15 @27457 has 19 MA's), (Start: 19 @27469 has 42 MA's),

Gene: Ubuntu_50 Start: 36949, Stop: 37146, Start Num: 19

Candidate Starts for Ubuntu_50:

(Start: 19 @36949 has 42 MA's), (25, 37012),

Gene: UmaThurman_37 Start: 31748, Stop: 31954, Start Num: 15

Candidate Starts for UmaThurman_37:

(1, 31565), (2, 31640), (4, 31670), (7, 31712), (Start: 15 @31748 has 19 MA's), (Start: 19 @31760 has 42 MA's), (26, 31826), (34, 31934), (35, 31937),

Gene: Venti_32 Start: 27464, Stop: 27709, Start Num: 15

Candidate Starts for Venti_32:

(11, 27446), (Start: 15 @27464 has 19 MA's), (Start: 19 @27476 has 42 MA's),

Gene: Vidya_32 Start: 27509, Stop: 27742, Start Num: 19

Candidate Starts for Vidya_32:

(11, 27479), (Start: 15 @27497 has 19 MA's), (Start: 19 @27509 has 42 MA's),

Gene: Webster2_50 Start: 36949, Stop: 37146, Start Num: 19

Candidate Starts for Webster2_50:

(Start: 19 @36949 has 42 MA's), (25, 37012),

Gene: Willsammy_31 Start: 27204, Stop: 27449, Start Num: 15
Candidate Starts for Willsammy_31:
(11, 27186), (Start: 15 @27204 has 19 MA's), (Start: 19 @27216 has 42 MA's),

Gene: ZAYM_43 Start: 32247, Stop: 32456, Start Num: 18
Candidate Starts for ZAYM_43:
(10, 32220), (Start: 18 @32247 has 1 MA's),

Gene: Zaheer_44 Start: 31390, Stop: 31605, Start Num: 19
Candidate Starts for Zaheer_44:
(Start: 19 @31390 has 42 MA's),

Gene: Zarbodnamra_42 Start: 32451, Stop: 32645, Start Num: 19
Candidate Starts for Zarbodnamra_42:
(Start: 19 @32451 has 42 MA's),

Gene: Zilizebeth_32 Start: 27496, Stop: 27741, Start Num: 15
Candidate Starts for Zilizebeth_32:
(11, 27478), (Start: 15 @27496 has 19 MA's), (Start: 19 @27508 has 42 MA's),