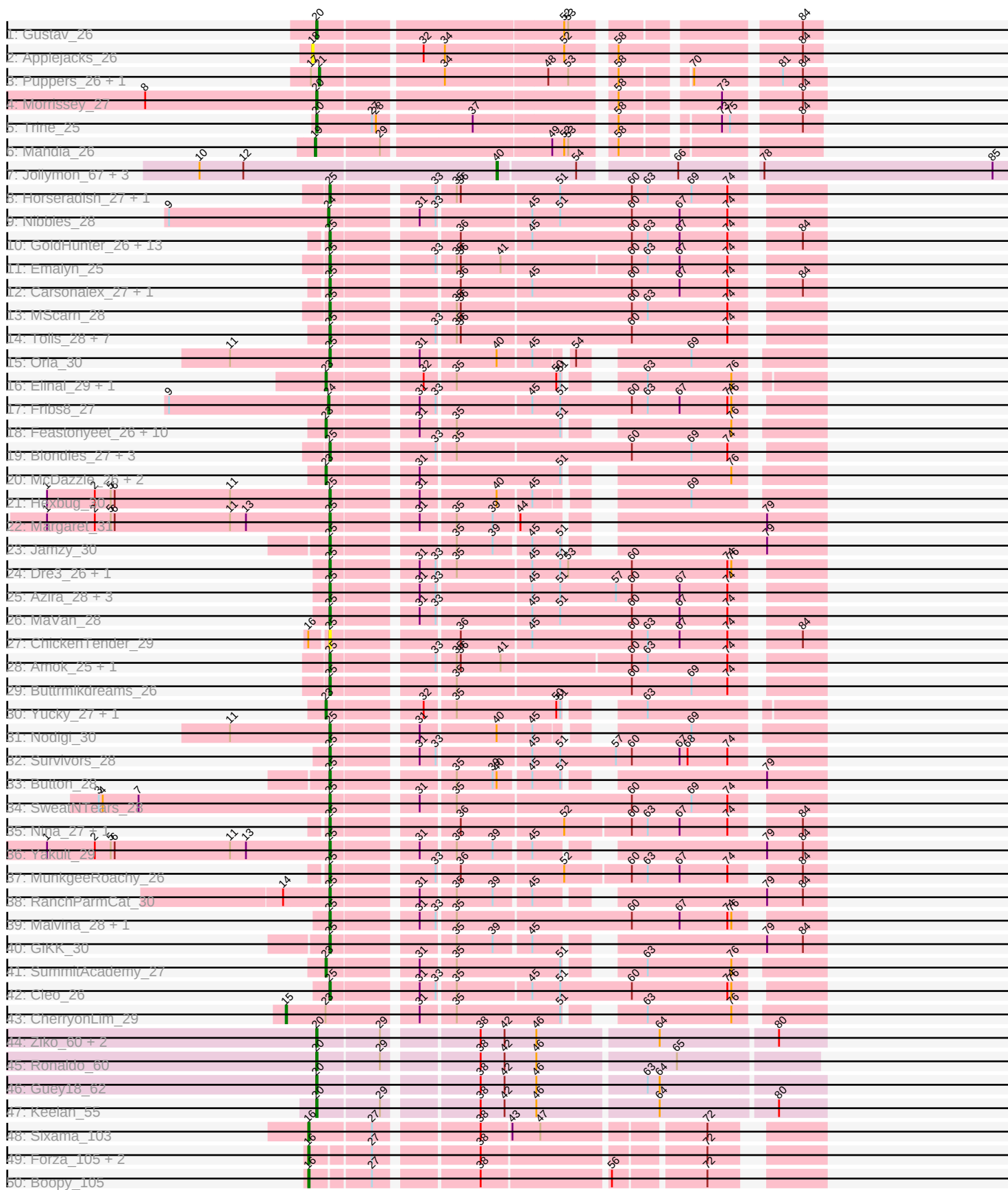
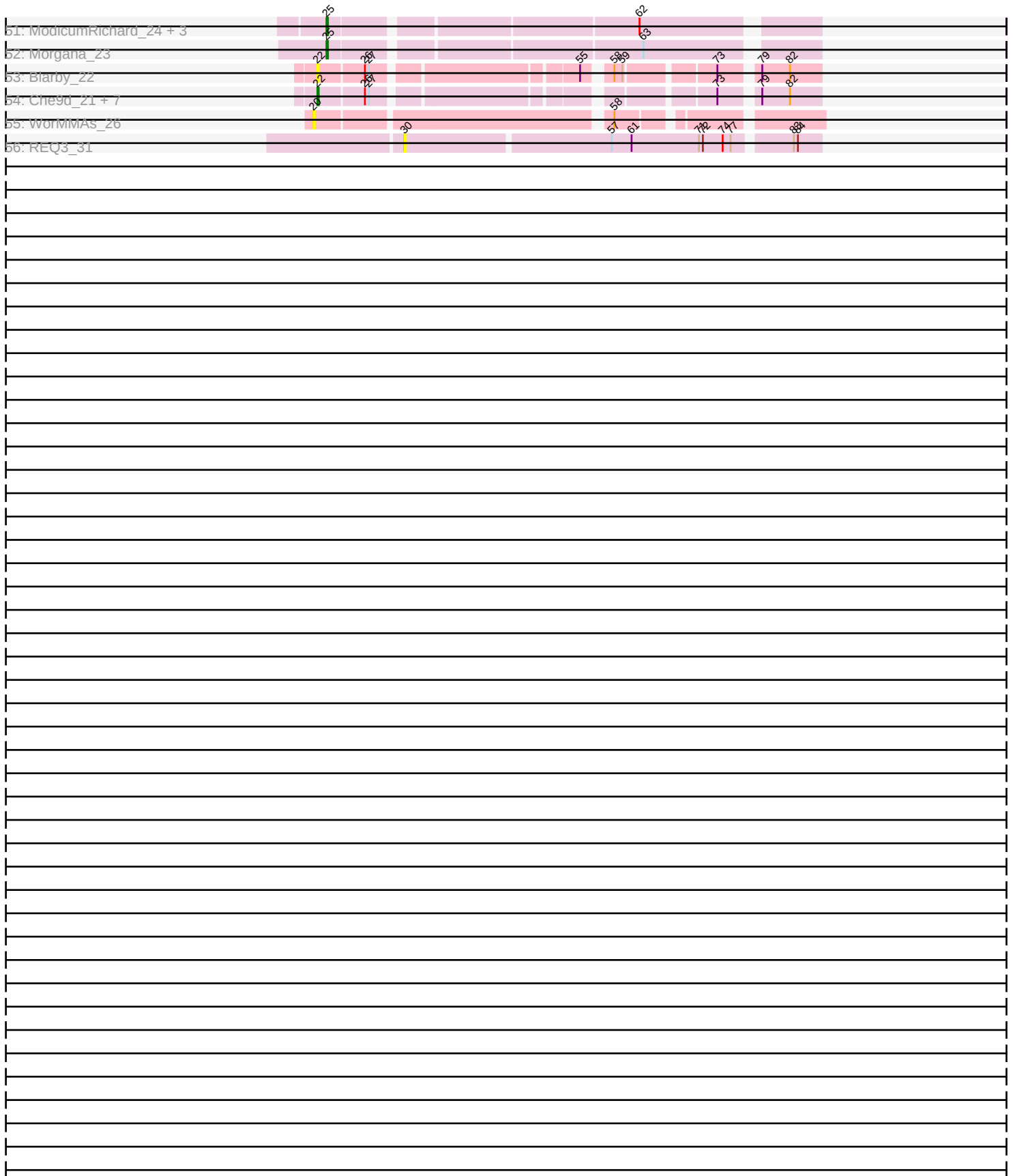


Pham 330631



Pham 330631



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 330631 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330631 has 120 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Gustav_26
- Track 2 : Applejacks_26
- Track 3 : Puppies_26, Widow_26
- Track 4 : Morrissey_27
- Track 5 : Trine_25
- Track 6 : Mahdia_26
- Track 7 : Jollymon_67, Purplicious_66, ColdSoup_68, Amo99_68
- Track 8 : Horseradish_27, Yummy_27
- Track 9 : Nibbles_28
- Track 10 : GoldHunter_26, Burnsey_26, Axym_26, RSchmailzl_27, RADical_27, Typhonomachy_26, Sopespian_26, Cozz_26, Socotra_27, PsychoKiller_26, Starburst_27, Bubble_26, Elliott_26, Quasar_26
- Track 11 : Emalyn_25
- Track 12 : Carsonalex_27, RedBaron_28
- Track 13 : MScarn_28
- Track 14 : Tolls_28, AndPeggy_25, Yarn_25, BillDoor_28, CanesSauce_26, SteamedHams_28, CaramelLatte_26, ChocoMunchkin_26
- Track 15 : Orla_30
- Track 16 : Elinal_29, KayGee_28
- Track 17 : Fribs8_27
- Track 18 : Feastonyet_26, Balloona_26, MAnor_28, CocoaPuff_26, SheckWes_27, Tarnish_28, Mayweather_29, PotPie_27, Lauer_27, Bavilard_27, BigChungus_26
- Track 19 : Blondies_27, Biskit_27, Troje_26, SketchMex_25
- Track 20 : McDazzle_26, Pons_28, ElJefes_26
- Track 21 : Hexbug_30
- Track 22 : Margaret_31
- Track 23 : Jamzy_30
- Track 24 : Dre3_26, Gibbous_26
- Track 25 : Azira_28, Zareef_28, Wallaby_30, Wolfwood_28
- Track 26 : MaVan_28
- Track 27 : ChickenTender_29
- Track 28 : Amok_25, AikoCarson_25
- Track 29 : Buttrmilkdreams_26
- Track 30 : Yucky_27, Vine_28
- Track 31 : Nodigi_30
- Track 32 : Survivors_28
- Track 33 : Button_28

- Track 34 : SweatNTears_28
- Track 35 : Nina_27, Agatha_26
- Track 36 : Yakult_29
- Track 37 : MunkgeeRoachy_26
- Track 38 : RanchParmCat_30
- Track 39 : Malvina_28, HippoPololi_28
- Track 40 : GiKK_30
- Track 41 : SummitAcademy_27
- Track 42 : Cleo_26
- Track 43 : CherryonLim_29
- Track 44 : Ziko_60, Volt_59, Fryberger_57
- Track 45 : Ronaldo_60
- Track 46 : Guey18_62
- Track 47 : Keelan_55
- Track 48 : Sixama_103
- Track 49 : Forza_105, BlueNGold_104, Mareelih_103
- Track 50 : Boopy_105
- Track 51 : ModicumRichard_24, ObLaDi_24, Cafasso_24, Aleemily_23
- Track 52 : Morgana_23
- Track 53 : Blarby_22
- Track 54 : Che9d_21, Zapner_22, Avani_21, SilverChicken_21, Jabbawokkie_23, Demsculpinboyz_21, Soul22_21, Yoshi_21
- Track 55 : WorMMAs_26
- Track 56 : REQ3_31

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

The start number called the most often in the published annotations is 25, it was called in 54 of the 97 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agatha_26, AikoCarson_25, Aleemily_23, Amok_25, AndPeggy_25, Axym_26, Azira_28, BillDoor_28, Biskit_27, Blondies_27, Bubble_26, Burnsey_26, Button_28, Buttrmilkdreams_26, Cafasso_24, CanesSauce_26, CaramellLatte_26, Carsonalex_27, ChickenTender_29, ChocoMunchkin_26, Cleo_26, Cozz_26, Dre3_26, Elliott_26, Emalyn_25, GiKK_30, Gibbous_26, GoldHunter_26, Hexbug_30, HippoPololi_28, Horseradish_27, Jamzy_30, MScarn_28, MaVan_28, Malvina_28, Margaret_31, ModicumRichard_24, Morgana_23, MunkgeeRoachy_26, Nina_27, Nodigi_30, ObLaDi_24, Orla_30, PsychoKiller_26, Quasar_26, RADical_27, RSchmailzl_27, RanchParmCat_30, RedBaron_28, SketchMex_25, Socotra_27, Sopespian_26, Starburst_27, SteamedHams_28, Survivors_28, SweatNTears_28, Tolls_28, Troje_26, Typhonomachy_26, Wallaby_30, Wolfwood_28, Yakult_29, Yarn_25, Yummy_27, Zareef_28,

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

-

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

- Amo99_68, Applejacks_26, Avani_21, Balloona_26, Bavailard_27, BigChungus_26, Blarby_22, BlueNGold_104, Boopy_105, Che9d_21, CherryonLim_29, CocoaPuff_26,

ColdSoup_68, Demsculpinboyz_21, ElJefes_26, Elinal_29, Feastonyeet_26, Forza_105, Fribs8_27, Fryberger_57, Guey18_62, Gustav_26, Jabbawokkie_23, Jollymon_67, KayGee_28, Keelan_55, Lauer_27, MAnor_28, Mahdia_26, Mareelih_103, Mayweather_29, McDazzle_26, Morrissey_27, Nibbles_28, Pons_28, PotPie_27, Puppies_26, Purpicious_66, REQ3_31, Ronaldo_60, SheckWes_27, SilverChicken_21, Sixama_103, Soul22_21, SummitAcademy_27, Tarnish_28, Trine_25, Vine_28, Volt_59, Widow_26, WorMMAs_26, Yoshi_21, Yucky_27, Zapner_22, Ziko_60,

Summary by start number:

Start 15:

- Found in 1 of 120 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 97
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryonLim_29 (CT),

Start 16:

- Found in 6 of 120 (5.0%) of genes in pham
- Manual Annotations of this start: 5 of 97
- Called 83.3% of time when present
- Phage (with cluster) where this start called: BlueNGold_104 (DS), Boopy_105 (DS), Forza_105 (DS), Mareelih_103 (DS), Sixama_103 (DS),

Start 18:

- Found in 1 of 120 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Applejacks_26 (CD),

Start 19:

- Found in 1 of 120 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 97
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mahdia_26 (CD),

Start 20:

- Found in 10 of 120 (8.3%) of genes in pham
- Manual Annotations of this start: 9 of 97
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger_57 (DP), Guey18_62 (DP), Gustav_26 (CD), Keelan_55 (DP), Morrissey_27 (CD), Ronaldo_60 (DP), Trine_25 (CD), Volt_59 (DP), WorMMAs_26 (UNK), Ziko_60 (DP),

Start 21:

- Found in 2 of 120 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 97
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Puppies_26 (CD), Widow_26 (CD),

Start 22:

- Found in 9 of 120 (7.5%) of genes in pham
- Manual Annotations of this start: 7 of 97

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Avani_21 (F2), Blarby_22 (F), Che9d_21 (F2), Demsculpinboyz_21 (F2), Jabbawokkie_23 (F2), SilverChicken_21 (F2), Soul22_21 (F2), Yoshi_21 (F2), Zapner_22 (F2),

Start 23:

- Found in 20 of 120 (16.7%) of genes in pham
- Manual Annotations of this start: 15 of 97
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Balloona_26 (CT), Bavidard_27 (CT), BigChungus_26 (CT), CocoaPuff_26 (CT), ElJefes_26 (CT), Elinal_29 (CT), Feastonyeet_26 (CT), KayGee_28 (CT), Lauer_27 (CT), MAnor_28 (CT), Mayweather_29 (CT), McDazzle_26 (CT), Pons_28 (CT), PotPie_27 (CT), SheckWes_27 (CT), SummitAcademy_27 (CT), Tarnish_28 (CT), Vine_28 (CT), Yucky_27 (CT),

Start 24:

- Found in 2 of 120 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 97
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fribs8_27 (CT), Nibbles_28 (CT),

Start 25:

- Found in 65 of 120 (54.2%) of genes in pham
- Manual Annotations of this start: 54 of 97
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agatha_26 (CT), AikoCarson_25 (CT), Aleemily_23 (DZ), Amok_25 (CT), AndPeggy_25 (CT), Axym_26 (CT), Azira_28 (CT), BillDoor_28 (CT), Biskit_27 (CT), Blondies_27 (CT), Bubble_26 (CT), Burnsey_26 (CT), Button_28 (CT), Buttermilkdreams_26 (CT), Cafasso_24 (DZ), CanesSauce_26 (CT), CaramelLatte_26 (CT), Carsonalex_27 (CT), ChickenTender_29 (CT), ChocoMunchkin_26 (CT), Cleo_26 (CT), Cozz_26 (CT), Dre3_26 (CT), Elliott_26 (CT), Emalyn_25 (CT), GiKK_30 (CT), Gibbous_26 (CT), GoldHunter_26 (CT), Hexbug_30 (CT), HippoPololi_28 (CT), Horseradish_27 (CT), Jamzy_30 (CT), MScarn_28 (CT), MaVan_28 (CT), Malvina_28 (CT), Margaret_31 (CT), ModicumRichard_24 (DZ), Morgana_23 (DZ), MunkgeeRoachy_26 (CT), Nina_27 (CT), Nodigi_30 (CT), ObLaDi_24 (DZ), Orla_30 (CT), PsychoKiller_26 (CT), Quasar_26 (CT), RADical_27 (CT), RSchmailzl_27 (CT), RanchParmCat_30 (CT), RedBaron_28 (CT), SketchMex_25 (CT), Socotra_27 (CT), Sopespian_26 (CT), Starburst_27 (CT), SteamedHams_28 (CT), Survivors_28 (CT), SweatNTears_28 (CT), Tolls_28 (CT), Troje_26 (CT), Typhonmarchy_26 (CT), Wallaby_30 (CT), Wolfwood_28 (CT), Yakult_29 (CT), Yarn_25 (CT), Yummy_27 (CT), Zareef_28 (CT),

Start 30:

- Found in 1 of 120 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ3_31 (singleton),

Start 40:

- Found in 8 of 120 (6.7%) of genes in pham
- Manual Annotations of this start: 1 of 97
- Called 50.0% of time when present

- Phage (with cluster) where this start called: Amo99_68 (CP), ColdSoup_68 (CP), Jollymon_67 (CP), Purplicious_66 (CP),

Summary by clusters:

There are 10 clusters represented in this pham: F2, CP, F, singleton, CD, DZ, UNK, DS, DP, CT,

Info for manual annotations of cluster CD:

- Start number 19 was manually annotated 1 time for cluster CD.
- Start number 20 was manually annotated 3 times for cluster CD.
- Start number 21 was manually annotated 2 times for cluster CD.

Info for manual annotations of cluster CP:

- Start number 40 was manually annotated 1 time for cluster CP.

Info for manual annotations of cluster CT:

- Start number 15 was manually annotated 1 time for cluster CT.
- Start number 23 was manually annotated 15 times for cluster CT.
- Start number 24 was manually annotated 2 times for cluster CT.
- Start number 25 was manually annotated 49 times for cluster CT.

Info for manual annotations of cluster DP:

- Start number 20 was manually annotated 6 times for cluster DP.

Info for manual annotations of cluster DS:

- Start number 16 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster DZ:

- Start number 25 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster F2:

- Start number 22 was manually annotated 7 times for cluster F2.

Gene Information:

Gene: Agatha_26 Start: 21623, Stop: 21961, Start Num: 25

Candidate Starts for Agatha_26:

(Start: 25 @21623 has 54 MA's), (36, 21707), (52, 21782), (60, 21830), (63, 21842), (67, 21866), (74, 21902), (84, 21944),

Gene: AikoCarson_25 Start: 20901, Stop: 21239, Start Num: 25

Candidate Starts for AikoCarson_25:

(Start: 25 @20901 has 54 MA's), (33, 20970), (35, 20982), (36, 20985), (41, 21015), (60, 21108), (63, 21120), (74, 21180),

Gene: Aleemily_23 Start: 21080, Stop: 21418, Start Num: 25

Candidate Starts for Aleemily_23:

(Start: 25 @21080 has 54 MA's), (62, 21296),

Gene: Amo99_68 Start: 44946, Stop: 45308, Start Num: 40

Candidate Starts for Amo99_68:

(10, 44727), (12, 44760), (Start: 40 @44946 has 1 MA's), (54, 45003), (66, 45069), (78, 45123), (85, 45294),

Gene: Amok_25 Start: 20859, Stop: 21197, Start Num: 25

Candidate Starts for Amok_25:

(Start: 25 @20859 has 54 MA's), (33, 20928), (35, 20940), (36, 20943), (41, 20973), (60, 21066), (63, 21078), (74, 21138),

Gene: AndPeggy_25 Start: 21304, Stop: 21645, Start Num: 25

Candidate Starts for AndPeggy_25:

(Start: 25 @21304 has 54 MA's), (33, 21373), (35, 21385), (36, 21388), (60, 21514), (74, 21586),

Gene: Applejacks_26 Start: 20444, Stop: 20785, Start Num: 18

Candidate Starts for Applejacks_26:

(18, 20444), (32, 20519), (34, 20534), (52, 20621), (58, 20651), (84, 20771),

Gene: Avani_21 Start: 15770, Stop: 16093, Start Num: 22

Candidate Starts for Avani_21:

(Start: 22 @15770 has 7 MA's), (26, 15803), (27, 15806), (73, 16025), (79, 16049), (82, 16070),

Gene: Axym_26 Start: 21623, Stop: 21964, Start Num: 25

Candidate Starts for Axym_26:

(Start: 25 @21623 has 54 MA's), (36, 21707), (45, 21758), (60, 21833), (63, 21845), (67, 21869), (74, 21905), (84, 21947),

Gene: Azira_28 Start: 22601, Stop: 22942, Start Num: 25

Candidate Starts for Azira_28:

(Start: 25 @22601 has 54 MA's), (31, 22658), (33, 22670), (45, 22736), (51, 22757), (57, 22799), (60, 22811), (67, 22847), (74, 22883),

Gene: Balloona_26 Start: 21507, Stop: 21830, Start Num: 23

Candidate Starts for Balloona_26:

(Start: 23 @21507 has 15 MA's), (31, 21567), (35, 21591), (51, 21669), (76, 21771),

Gene: Bavilard_27 Start: 22292, Stop: 22615, Start Num: 23

Candidate Starts for Bavilard_27:

(Start: 23 @22292 has 15 MA's), (31, 22352), (35, 22376), (51, 22454), (76, 22556),

Gene: BigChungus_26 Start: 21550, Stop: 21873, Start Num: 23

Candidate Starts for BigChungus_26:

(Start: 23 @21550 has 15 MA's), (31, 21610), (35, 21634), (51, 21712), (76, 21814),

Gene: BillDoor_28 Start: 21251, Stop: 21592, Start Num: 25

Candidate Starts for BillDoor_28:

(Start: 25 @21251 has 54 MA's), (33, 21320), (35, 21332), (36, 21335), (60, 21461), (74, 21533),

Gene: Biskit_27 Start: 21276, Stop: 21617, Start Num: 25

Candidate Starts for Biskit_27:

(Start: 25 @21276 has 54 MA's), (33, 21345), (35, 21357), (60, 21486), (69, 21531), (74, 21558),

Gene: Blarby_22 Start: 16290, Stop: 16613, Start Num: 22

Candidate Starts for Blarby_22:

(Start: 22 @16290 has 7 MA's), (26, 16323), (27, 16326), (55, 16464), (58, 16479), (59, 16485), (73, 16545), (79, 16569), (82, 16590),

Gene: Blondies_27 Start: 21259, Stop: 21600, Start Num: 25

Candidate Starts for Blondies_27:

(Start: 25 @21259 has 54 MA's), (33, 21328), (35, 21340), (60, 21469), (69, 21514), (74, 21541),

Gene: BlueNGold_104 Start: 64169, Stop: 64501, Start Num: 16

Candidate Starts for BlueNGold_104:

(Start: 16 @64169 has 5 MA's), (27, 64211), (38, 64280), (72, 64433),

Gene: Boopy_105 Start: 64181, Stop: 64513, Start Num: 16

Candidate Starts for Boopy_105:

(Start: 16 @64181 has 5 MA's), (27, 64223), (38, 64292), (56, 64382), (72, 64445),

Gene: Bubble_26 Start: 21623, Stop: 21964, Start Num: 25

Candidate Starts for Bubble_26:

(Start: 25 @21623 has 54 MA's), (36, 21707), (45, 21758), (60, 21833), (63, 21845), (67, 21869), (74, 21905), (84, 21947),

Gene: Burnsey_26 Start: 21624, Stop: 21965, Start Num: 25

Candidate Starts for Burnsey_26:

(Start: 25 @21624 has 54 MA's), (36, 21708), (45, 21759), (60, 21834), (63, 21846), (67, 21870), (74, 21906), (84, 21948),

Gene: Button_28 Start: 21047, Stop: 21373, Start Num: 25

Candidate Starts for Button_28:

(Start: 25 @21047 has 54 MA's), (35, 21128), (39, 21155), (Start: 40 @21158 has 1 MA's), (45, 21179), (51, 21200), (79, 21329),

Gene: Buttrmlkdreams_26 Start: 21258, Stop: 21599, Start Num: 25

Candidate Starts for Buttrmlkdreams_26:

(Start: 25 @21258 has 54 MA's), (35, 21339), (60, 21468), (69, 21513), (74, 21540),

Gene: Cafasso_24 Start: 21653, Stop: 21991, Start Num: 25

Candidate Starts for Cafasso_24:

(Start: 25 @21653 has 54 MA's), (62, 21869),

Gene: CanesSauce_26 Start: 21305, Stop: 21646, Start Num: 25

Candidate Starts for CanesSauce_26:

(Start: 25 @21305 has 54 MA's), (33, 21374), (35, 21386), (36, 21389), (60, 21515), (74, 21587),

Gene: CaramelLatte_26 Start: 21305, Stop: 21646, Start Num: 25

Candidate Starts for CaramelLatte_26:

(Start: 25 @21305 has 54 MA's), (33, 21374), (35, 21386), (36, 21389), (60, 21515), (74, 21587),

Gene: Carsonalex_27 Start: 21681, Stop: 22022, Start Num: 25

Candidate Starts for Carsonalex_27:

(Start: 25 @21681 has 54 MA's), (36, 21765), (45, 21816), (60, 21891), (67, 21927), (74, 21963), (84, 22005),

Gene: Che9d_21 Start: 15778, Stop: 16101, Start Num: 22

Candidate Starts for Che9d_21:

(Start: 22 @15778 has 7 MA's), (26, 15811), (27, 15814), (73, 16033), (79, 16057), (82, 16078),

Gene: CherryonLim_29 Start: 23257, Stop: 23610, Start Num: 15

Candidate Starts for CherryonLim_29:

(Start: 15 @23257 has 1 MA's), (Start: 23 @23287 has 15 MA's), (31, 23347), (35, 23371), (51, 23449), (63, 23488), (76, 23551),

Gene: ChickenTender_29 Start: 21897, Stop: 22238, Start Num: 25

Candidate Starts for ChickenTender_29:

(Start: 16 @21885 has 5 MA's), (Start: 25 @21897 has 54 MA's), (36, 21981), (45, 22032), (60, 22107), (63, 22119), (67, 22143), (74, 22179), (84, 22221),

Gene: ChocoMunchkin_26 Start: 21305, Stop: 21646, Start Num: 25

Candidate Starts for ChocoMunchkin_26:

(Start: 25 @21305 has 54 MA's), (33, 21374), (35, 21386), (36, 21389), (60, 21515), (74, 21587),

Gene: Cleo_26 Start: 21948, Stop: 22289, Start Num: 25

Candidate Starts for Cleo_26:

(Start: 25 @21948 has 54 MA's), (31, 22005), (33, 22017), (35, 22029), (45, 22083), (51, 22104), (60, 22158), (74, 22230), (76, 22233),

Gene: CocoaPuff_26 Start: 21504, Stop: 21827, Start Num: 23

Candidate Starts for CocoaPuff_26:

(Start: 23 @21504 has 15 MA's), (31, 21564), (35, 21588), (51, 21666), (76, 21768),

Gene: ColdSoup_68 Start: 45027, Stop: 45389, Start Num: 40

Candidate Starts for ColdSoup_68:

(10, 44808), (12, 44841), (Start: 40 @45027 has 1 MA's), (54, 45084), (66, 45150), (78, 45204), (85, 45375),

Gene: Cozz_26 Start: 21624, Stop: 21965, Start Num: 25

Candidate Starts for Cozz_26:

(Start: 25 @21624 has 54 MA's), (36, 21708), (45, 21759), (60, 21834), (63, 21846), (67, 21870), (74, 21906), (84, 21948),

Gene: Demsculpinboyz_21 Start: 15763, Stop: 16086, Start Num: 22

Candidate Starts for Demsculpinboyz_21:

(Start: 22 @15763 has 7 MA's), (26, 15796), (27, 15799), (73, 16018), (79, 16042), (82, 16063),

Gene: Dre3_26 Start: 21874, Stop: 22215, Start Num: 25

Candidate Starts for Dre3_26:

(Start: 25 @21874 has 54 MA's), (31, 21931), (33, 21943), (35, 21955), (45, 22009), (51, 22030), (53, 22036), (60, 22084), (74, 22156), (76, 22159),

Gene: ElJefes_26 Start: 21983, Stop: 22306, Start Num: 23

Candidate Starts for ElJefes_26:

(Start: 23 @21983 has 15 MA's), (31, 22043), (51, 22145), (76, 22247),

Gene: Elinal_29 Start: 22527, Stop: 22847, Start Num: 23

Candidate Starts for Elinal_29:

(Start: 23 @22527 has 15 MA's), (32, 22590), (35, 22611), (50, 22686), (51, 22689), (63, 22728), (76, 22791),

Gene: Elliott_26 Start: 21623, Stop: 21964, Start Num: 25

Candidate Starts for Elliott_26:

(Start: 25 @21623 has 54 MA's), (36, 21707), (45, 21758), (60, 21833), (63, 21845), (67, 21869), (74, 21905), (84, 21947),

Gene: Emalyn_25 Start: 20900, Stop: 21238, Start Num: 25

Candidate Starts for Emalyn_25:

(Start: 25 @20900 has 54 MA's), (33, 20969), (35, 20981), (36, 20984), (41, 21014), (60, 21107), (63, 21119), (67, 21143), (74, 21179),

Gene: Feastonyeet_26 Start: 21550, Stop: 21873, Start Num: 23

Candidate Starts for Feastonyeet_26:

(Start: 23 @21550 has 15 MA's), (31, 21610), (35, 21634), (51, 21712), (76, 21814),

Gene: Forza_105 Start: 64097, Stop: 64429, Start Num: 16

Candidate Starts for Forza_105:

(Start: 16 @64097 has 5 MA's), (27, 64139), (38, 64208), (72, 64361),

Gene: Fribs8_27 Start: 22452, Stop: 22793, Start Num: 24

Candidate Starts for Fribs8_27:

(9, 22332), (Start: 24 @22452 has 2 MA's), (31, 22509), (33, 22521), (45, 22587), (51, 22608), (60, 22662), (63, 22674), (67, 22698), (74, 22734), (76, 22737),

Gene: Fryberger_57 Start: 31459, Stop: 31815, Start Num: 20

Candidate Starts for Fryberger_57:

(Start: 20 @31459 has 9 MA's), (29, 31504), (38, 31567), (42, 31585), (46, 31609), (64, 31696), (80, 31780),

Gene: GiKK_30 Start: 21346, Stop: 21672, Start Num: 25

Candidate Starts for GiKK_30:

(Start: 25 @21346 has 54 MA's), (35, 21427), (39, 21454), (45, 21478), (79, 21628), (84, 21655),

Gene: Gibbous_26 Start: 21874, Stop: 22215, Start Num: 25

Candidate Starts for Gibbous_26:

(Start: 25 @21874 has 54 MA's), (31, 21931), (33, 21943), (35, 21955), (45, 22009), (51, 22030), (53, 22036), (60, 22084), (74, 22156), (76, 22159),

Gene: GoldHunter_26 Start: 21624, Stop: 21965, Start Num: 25

Candidate Starts for GoldHunter_26:

(Start: 25 @21624 has 54 MA's), (36, 21708), (45, 21759), (60, 21834), (63, 21846), (67, 21870), (74, 21906), (84, 21948),

Gene: Guey18_62 Start: 32651, Stop: 33007, Start Num: 20

Candidate Starts for Guey18_62:

(Start: 20 @32651 has 9 MA's), (38, 32759), (42, 32777), (46, 32801), (63, 32879), (64, 32888),

Gene: Gustav_26 Start: 21213, Stop: 21548, Start Num: 20

Candidate Starts for Gustav_26:

(Start: 20 @21213 has 9 MA's), (52, 21387), (53, 21390), (84, 21534),

Gene: Hexbug_30 Start: 21835, Stop: 22149, Start Num: 25

Candidate Starts for Hexbug_30:

(1, 21622), (2, 21658), (5, 21670), (6, 21673), (11, 21760), (Start: 25 @21835 has 54 MA's), (31, 21892), (Start: 40 @21946 has 1 MA's), (45, 21970), (69, 22060),

Gene: HippoPololi_28 Start: 22523, Stop: 22864, Start Num: 25

Candidate Starts for HippoPololi_28:

(Start: 25 @22523 has 54 MA's), (31, 22580), (33, 22592), (35, 22604), (60, 22733), (67, 22769), (74, 22805), (76, 22808),

Gene: Horseradish_27 Start: 21097, Stop: 21438, Start Num: 25

Candidate Starts for Horseradish_27:

(Start: 25 @21097 has 54 MA's), (33, 21166), (35, 21178), (36, 21181), (51, 21253), (60, 21307), (63, 21319), (69, 21352), (74, 21379),

Gene: Jabbawokkie_23 Start: 16293, Stop: 16616, Start Num: 22

Candidate Starts for Jabbawokkie_23:

(Start: 22 @16293 has 7 MA's), (26, 16326), (27, 16329), (73, 16548), (79, 16572), (82, 16593),

Gene: Jamzy_30 Start: 21360, Stop: 21686, Start Num: 25

Candidate Starts for Jamzy_30:

(Start: 25 @21360 has 54 MA's), (35, 21441), (39, 21468), (45, 21492), (51, 21513), (79, 21642),

Gene: Jollymon_67 Start: 45027, Stop: 45389, Start Num: 40

Candidate Starts for Jollymon_67:

(10, 44808), (12, 44841), (Start: 40 @45027 has 1 MA's), (54, 45084), (66, 45150), (78, 45204), (85, 45375),

Gene: KayGee_28 Start: 22527, Stop: 22847, Start Num: 23

Candidate Starts for KayGee_28:

(Start: 23 @22527 has 15 MA's), (32, 22590), (35, 22611), (50, 22686), (51, 22689), (63, 22728), (76, 22791),

Gene: Keelan_55 Start: 31456, Stop: 31812, Start Num: 20

Candidate Starts for Keelan_55:

(Start: 20 @31456 has 9 MA's), (29, 31501), (38, 31564), (42, 31582), (46, 31606), (64, 31693), (80, 31777),

Gene: Lauer_27 Start: 22580, Stop: 22903, Start Num: 23

Candidate Starts for Lauer_27:

(Start: 23 @22580 has 15 MA's), (31, 22640), (35, 22664), (51, 22742), (76, 22844),

Gene: MAnor_28 Start: 22547, Stop: 22870, Start Num: 23

Candidate Starts for MAnor_28:

(Start: 23 @22547 has 15 MA's), (31, 22607), (35, 22631), (51, 22709), (76, 22811),

Gene: MScarn_28 Start: 21261, Stop: 21602, Start Num: 25

Candidate Starts for MScarn_28:

(Start: 25 @21261 has 54 MA's), (35, 21342), (36, 21345), (60, 21471), (63, 21483), (74, 21543),

Gene: MaVan_28 Start: 22634, Stop: 22975, Start Num: 25

Candidate Starts for MaVan_28:

(Start: 25 @22634 has 54 MA's), (31, 22691), (33, 22703), (45, 22769), (51, 22790), (60, 22844), (67, 22880), (74, 22916),

Gene: Mahdia_26 Start: 20538, Stop: 20870, Start Num: 19

Candidate Starts for Mahdia_26:

(Start: 19 @20538 has 1 MA's), (29, 20583), (49, 20703), (52, 20712), (53, 20715), (58, 20742),

Gene: Malvina_28 Start: 22526, Stop: 22867, Start Num: 25

Candidate Starts for Malvina_28:

(Start: 25 @22526 has 54 MA's), (31, 22583), (33, 22595), (35, 22607), (60, 22736), (67, 22772), (74, 22808), (76, 22811),

Gene: Mareelih_103 Start: 63599, Stop: 63931, Start Num: 16

Candidate Starts for Mareelih_103:

(Start: 16 @63599 has 5 MA's), (27, 63641), (38, 63710), (72, 63863),

Gene: Margaret_31 Start: 21555, Stop: 21884, Start Num: 25

Candidate Starts for Margaret_31:

(1, 21342), (2, 21378), (5, 21390), (6, 21393), (11, 21480), (13, 21492), (Start: 25 @21555 has 54 MA's), (31, 21612), (35, 21636), (39, 21663), (44, 21681), (79, 21840),

Gene: Mayweather_29 Start: 23163, Stop: 23486, Start Num: 23

Candidate Starts for Mayweather_29:

(Start: 23 @23163 has 15 MA's), (31, 23223), (35, 23247), (51, 23325), (76, 23427),

Gene: McDazzle_26 Start: 21977, Stop: 22300, Start Num: 23

Candidate Starts for McDazzle_26:

(Start: 23 @21977 has 15 MA's), (31, 22037), (51, 22139), (76, 22241),

Gene: ModicumRichard_24 Start: 21653, Stop: 21991, Start Num: 25

Candidate Starts for ModicumRichard_24:

(Start: 25 @21653 has 54 MA's), (62, 21869),

Gene: Morgana_23 Start: 21084, Stop: 21422, Start Num: 25

Candidate Starts for Morgana_23:

(Start: 25 @21084 has 54 MA's), (63, 21303),

Gene: Morrissey_27 Start: 22085, Stop: 22423, Start Num: 20

Candidate Starts for Morrissey_27:

(8, 21956), (Start: 20 @22085 has 9 MA's), (58, 22289), (73, 22355), (84, 22406),

Gene: MunkgeeRoachy_26 Start: 21704, Stop: 22042, Start Num: 25

Candidate Starts for MunkgeeRoachy_26:

(Start: 25 @21704 has 54 MA's), (33, 21773), (36, 21788), (52, 21863), (60, 21911), (63, 21923), (67, 21947), (74, 21983), (84, 22025),

Gene: Nibbles_28 Start: 22633, Stop: 22974, Start Num: 24

Candidate Starts for Nibbles_28:

(9, 22513), (Start: 24 @22633 has 2 MA's), (31, 22690), (33, 22702), (45, 22768), (51, 22789), (60, 22843), (67, 22879), (74, 22915),

Gene: Nina_27 Start: 22666, Stop: 23004, Start Num: 25

Candidate Starts for Nina_27:

(Start: 25 @22666 has 54 MA's), (36, 22750), (52, 22825), (60, 22873), (63, 22885), (67, 22909), (74, 22945), (84, 22987),

Gene: Nodigi_30 Start: 21804, Stop: 22118, Start Num: 25

Candidate Starts for Nodigi_30:

(11, 21729), (Start: 25 @21804 has 54 MA's), (31, 21861), (Start: 40 @21915 has 1 MA's), (45, 21939), (69, 22029),

Gene: ObLaDi_24 Start: 21632, Stop: 21970, Start Num: 25

Candidate Starts for ObLaDi_24:

(Start: 25 @21632 has 54 MA's), (62, 21848),

Gene: Orla_30 Start: 21808, Stop: 22122, Start Num: 25

Candidate Starts for Orla_30:

(11, 21733), (Start: 25 @21808 has 54 MA's), (31, 21865), (Start: 40 @21919 has 1 MA's), (45, 21943), (54, 21967), (69, 22033),

Gene: Pons_28 Start: 22536, Stop: 22859, Start Num: 23

Candidate Starts for Pons_28:

(Start: 23 @22536 has 15 MA's), (31, 22596), (51, 22698), (76, 22800),

Gene: PotPie_27 Start: 22369, Stop: 22692, Start Num: 23

Candidate Starts for PotPie_27:

(Start: 23 @22369 has 15 MA's), (31, 22429), (35, 22453), (51, 22531), (76, 22633),

Gene: PsychoKiller_26 Start: 21623, Stop: 21964, Start Num: 25

Candidate Starts for PsychoKiller_26:

(Start: 25 @21623 has 54 MA's), (36, 21707), (45, 21758), (60, 21833), (63, 21845), (67, 21869), (74, 21905), (84, 21947),

Gene: Puppies_26 Start: 20940, Stop: 21272, Start Num: 21

Candidate Starts for Puppies_26:

(17, 20934), (Start: 21 @20940 has 2 MA's), (34, 21024), (48, 21099), (53, 21114), (58, 21141), (70, 21183), (81, 21240), (84, 21255),

Gene: Purplicious_66 Start: 44274, Stop: 44636, Start Num: 40

Candidate Starts for Purplicious_66:

(10, 44055), (12, 44088), (Start: 40 @44274 has 1 MA's), (54, 44331), (66, 44397), (78, 44451), (85, 44622),

Gene: Quasar_26 Start: 22232, Stop: 22573, Start Num: 25

Candidate Starts for Quasar_26:

(Start: 25 @22232 has 54 MA's), (36, 22316), (45, 22367), (60, 22442), (63, 22454), (67, 22478), (74, 22514), (84, 22556),

Gene: RADical_27 Start: 21624, Stop: 21965, Start Num: 25

Candidate Starts for RADical_27:

(Start: 25 @21624 has 54 MA's), (36, 21708), (45, 21759), (60, 21834), (63, 21846), (67, 21870), (74, 21906), (84, 21948),

Gene: REQ3_31 Start: 14457, Stop: 14756, Start Num: 30

Candidate Starts for REQ3_31:

(30, 14457), (57, 14607), (61, 14622), (71, 14673), (72, 14676), (74, 14691), (77, 14697), (83, 14736), (84, 14739),

Gene: RSchmailzl_27 Start: 21767, Stop: 22108, Start Num: 25

Candidate Starts for RSchmailzl_27:

(Start: 25 @21767 has 54 MA's), (36, 21851), (45, 21902), (60, 21977), (63, 21989), (67, 22013), (74, 22049), (84, 22091),

Gene: RanchParmCat_30 Start: 21691, Stop: 22017, Start Num: 25

Candidate Starts for RanchParmCat_30:

(14, 21658), (Start: 25 @21691 has 54 MA's), (31, 21748), (35, 21772), (39, 21799), (45, 21823), (79, 21973), (84, 22000),

Gene: RedBaron_28 Start: 21667, Stop: 22008, Start Num: 25

Candidate Starts for RedBaron_28:

(Start: 25 @21667 has 54 MA's), (36, 21751), (45, 21802), (60, 21877), (67, 21913), (74, 21949), (84, 21991),

Gene: Ronaldo_60 Start: 32404, Stop: 32754, Start Num: 20

Candidate Starts for Ronaldo_60:

(Start: 20 @32404 has 9 MA's), (29, 32449), (38, 32512), (42, 32530), (46, 32554), (65, 32653),

Gene: SheckWes_27 Start: 21513, Stop: 21836, Start Num: 23

Candidate Starts for SheckWes_27:

(Start: 23 @21513 has 15 MA's), (31, 21573), (35, 21597), (51, 21675), (76, 21777),

Gene: SilverChicken_21 Start: 15770, Stop: 16093, Start Num: 22

Candidate Starts for SilverChicken_21:

(Start: 22 @15770 has 7 MA's), (26, 15803), (27, 15806), (73, 16025), (79, 16049), (82, 16070),

Gene: Sixama_103 Start: 63600, Stop: 63935, Start Num: 16

Candidate Starts for Sixama_103:

(Start: 16 @63600 has 5 MA's), (27, 63645), (38, 63714), (43, 63735), (47, 63756), (72, 63867),

Gene: SketchMex_25 Start: 21276, Stop: 21617, Start Num: 25

Candidate Starts for SketchMex_25:

(Start: 25 @21276 has 54 MA's), (33, 21345), (35, 21357), (60, 21486), (69, 21531), (74, 21558),

Gene: Socotra_27 Start: 21623, Stop: 21964, Start Num: 25

Candidate Starts for Socotra_27:

(Start: 25 @21623 has 54 MA's), (36, 21707), (45, 21758), (60, 21833), (63, 21845), (67, 21869), (74, 21905), (84, 21947),

Gene: Sopespian_26 Start: 21624, Stop: 21965, Start Num: 25

Candidate Starts for Sopespian_26:

(Start: 25 @21624 has 54 MA's), (36, 21708), (45, 21759), (60, 21834), (63, 21846), (67, 21870), (74, 21906), (84, 21948),

Gene: Soul22_21 Start: 15768, Stop: 16091, Start Num: 22

Candidate Starts for Soul22_21:

(Start: 22 @15768 has 7 MA's), (26, 15801), (27, 15804), (73, 16023), (79, 16047), (82, 16068),

Gene: Starburst_27 Start: 21624, Stop: 21965, Start Num: 25

Candidate Starts for Starburst_27:

(Start: 25 @21624 has 54 MA's), (36, 21708), (45, 21759), (60, 21834), (63, 21846), (67, 21870), (74, 21906), (84, 21948),

Gene: SteamedHams_28 Start: 21281, Stop: 21622, Start Num: 25

Candidate Starts for SteamedHams_28:

(Start: 25 @21281 has 54 MA's), (33, 21350), (35, 21362), (36, 21365), (60, 21491), (74, 21563),

Gene: SummitAcademy_27 Start: 21589, Stop: 21912, Start Num: 23

Candidate Starts for SummitAcademy_27:

(Start: 23 @21589 has 15 MA's), (31, 21649), (35, 21673), (51, 21751), (63, 21790), (76, 21853),

Gene: Survivors_28 Start: 22450, Stop: 22791, Start Num: 25

Candidate Starts for Survivors_28:

(Start: 25 @22450 has 54 MA's), (31, 22507), (33, 22519), (45, 22585), (51, 22606), (57, 22648), (60, 22660), (67, 22696), (68, 22702), (74, 22732),

Gene: SweatNTears_28 Start: 21544, Stop: 21885, Start Num: 25

Candidate Starts for SweatNTears_28:

(3, 21370), (4, 21373), (7, 21400), (Start: 25 @21544 has 54 MA's), (31, 21601), (35, 21625), (60, 21754), (69, 21799), (74, 21826),

Gene: Tarnish_28 Start: 22904, Stop: 23227, Start Num: 23

Candidate Starts for Tarnish_28:

(Start: 23 @22904 has 15 MA's), (31, 22964), (35, 22988), (51, 23066), (76, 23168),

Gene: Tolls_28 Start: 21275, Stop: 21616, Start Num: 25

Candidate Starts for Tolls_28:

(Start: 25 @21275 has 54 MA's), (33, 21344), (35, 21356), (36, 21359), (60, 21485), (74, 21557),

Gene: Trine_25 Start: 20596, Stop: 20931, Start Num: 20

Candidate Starts for Trine_25:

(Start: 20 @20596 has 9 MA's), (27, 20638), (28, 20641), (37, 20707), (58, 20803), (73, 20866), (75, 20872), (84, 20917),

Gene: Troje_26 Start: 21258, Stop: 21599, Start Num: 25

Candidate Starts for Troje_26:

(Start: 25 @21258 has 54 MA's), (33, 21327), (35, 21339), (60, 21468), (69, 21513), (74, 21540),

Gene: Typhonomachy_26 Start: 21656, Stop: 21997, Start Num: 25

Candidate Starts for Typhonomachy_26:

(Start: 25 @21656 has 54 MA's), (36, 21740), (45, 21791), (60, 21866), (63, 21878), (67, 21902), (74, 21938), (84, 21980),

Gene: Vine_28 Start: 22510, Stop: 22830, Start Num: 23

Candidate Starts for Vine_28:

(Start: 23 @22510 has 15 MA's), (32, 22573), (35, 22594), (50, 22669), (51, 22672), (63, 22711),

Gene: Volt_59 Start: 32404, Stop: 32760, Start Num: 20

Candidate Starts for Volt_59:

(Start: 20 @32404 has 9 MA's), (29, 32449), (38, 32512), (42, 32530), (46, 32554), (64, 32641), (80, 32725),

Gene: Wallaby_30 Start: 22594, Stop: 22935, Start Num: 25

Candidate Starts for Wallaby_30:

(Start: 25 @22594 has 54 MA's), (31, 22651), (33, 22663), (45, 22729), (51, 22750), (57, 22792), (60, 22804), (67, 22840), (74, 22876),

Gene: Widow_26 Start: 20931, Stop: 21263, Start Num: 21

Candidate Starts for Widow_26:

(17, 20925), (Start: 21 @20931 has 2 MA's), (34, 21015), (48, 21090), (53, 21105), (58, 21132), (70, 21174), (81, 21231), (84, 21246),

Gene: Wolfwood_28 Start: 22594, Stop: 22935, Start Num: 25

Candidate Starts for Wolfwood_28:

(Start: 25 @22594 has 54 MA's), (31, 22651), (33, 22663), (45, 22729), (51, 22750), (57, 22792), (60, 22804), (67, 22840), (74, 22876),

Gene: WorMMAs_26 Start: 20405, Stop: 20746, Start Num: 20

Candidate Starts for WorMMAs_26:

(Start: 20 @20405 has 9 MA's), (58, 20612),

Gene: Yakult_29 Start: 21409, Stop: 21735, Start Num: 25

Candidate Starts for Yakult_29:

(1, 21196), (2, 21232), (5, 21244), (6, 21247), (11, 21334), (13, 21346), (Start: 25 @21409 has 54 MA's), (31, 21466), (35, 21490), (39, 21517), (45, 21541), (79, 21691), (84, 21718),

Gene: Yarn_25 Start: 21298, Stop: 21639, Start Num: 25

Candidate Starts for Yarn_25:

(Start: 25 @21298 has 54 MA's), (33, 21367), (35, 21379), (36, 21382), (60, 21508), (74, 21580),

Gene: Yoshi_21 Start: 15769, Stop: 16092, Start Num: 22

Candidate Starts for Yoshi_21:

(Start: 22 @15769 has 7 MA's), (26, 15802), (27, 15805), (73, 16024), (79, 16048), (82, 16069),

Gene: Yucky_27 Start: 22369, Stop: 22689, Start Num: 23

Candidate Starts for Yucky_27:

(Start: 23 @22369 has 15 MA's), (32, 22432), (35, 22453), (50, 22528), (51, 22531), (63, 22570),

Gene: Yummy_27 Start: 21211, Stop: 21552, Start Num: 25

Candidate Starts for Yummy_27:

(Start: 25 @21211 has 54 MA's), (33, 21280), (35, 21292), (36, 21295), (51, 21367), (60, 21421), (63, 21433), (69, 21466), (74, 21493),

Gene: Zapner_22 Start: 16294, Stop: 16617, Start Num: 22

Candidate Starts for Zapner_22:

(Start: 22 @16294 has 7 MA's), (26, 16327), (27, 16330), (73, 16549), (79, 16573), (82, 16594),

Gene: Zareef_28 Start: 22602, Stop: 22943, Start Num: 25

Candidate Starts for Zareef_28:

(Start: 25 @22602 has 54 MA's), (31, 22659), (33, 22671), (45, 22737), (51, 22758), (57, 22800), (60, 22812), (67, 22848), (74, 22884),

Gene: Ziko_60 Start: 32344, Stop: 32700, Start Num: 20

Candidate Starts for Ziko_60:

(Start: 20 @32344 has 9 MA's), (29, 32389), (38, 32452), (42, 32470), (46, 32494), (64, 32581), (80, 32665),