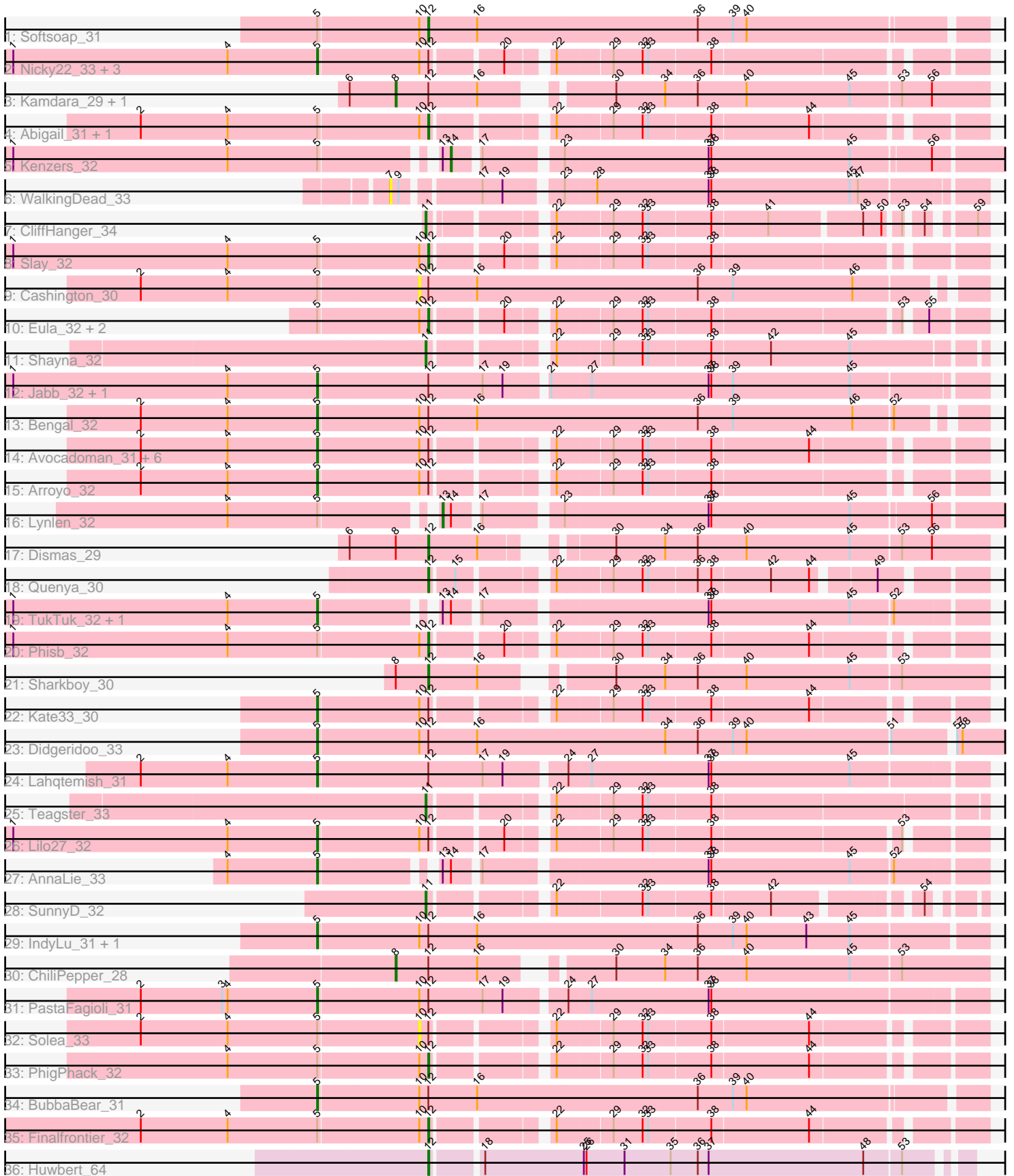


Pham 294801



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 294801 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294801 has 52 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Softsoap_31
- Track 2 : Nicky22_33, Jovita_32, SarBear_31, Swervy_32
- Track 3 : Kamdara_29, Kieran_29
- Track 4 : Abigail_31, Johnathan_31
- Track 5 : Kenzers_32
- Track 6 : WalkingDead_33
- Track 7 : CliffHanger_34
- Track 8 : Slay_32
- Track 9 : Cashington_30
- Track 10 : Eula_32, QMacho_33, Pecas_32
- Track 11 : Shayna_32
- Track 12 : Jabb_32, CupcakePrincess_32
- Track 13 : Bengal_32
- Track 14 : Avocadoman_31, SansAfet_32, Burritobowl_31, DickRichards_31, Milomuff_32, Doobus_31, LimaBean_31
- Track 15 : Arroyo_32
- Track 16 : Lynlen_32
- Track 17 : Dismas_29
- Track 18 : Quenya_30
- Track 19 : TukTuk_32, Albedo_32
- Track 20 : Phisb_32
- Track 21 : Sharkboy_30
- Track 22 : Kate33_30
- Track 23 : Didgeridoo_33
- Track 24 : Lahqtemish_31
- Track 25 : Teagster_33
- Track 26 : Lilo27_32
- Track 27 : AnnaLie_33
- Track 28 : SunnyD_32
- Track 29 : IndyLu_31, BabyDaisy_31
- Track 30 : ChiliPepper_28
- Track 31 : PastaFagioli_31
- Track 32 : Solea_33
- Track 33 : PhigPhack_32
- Track 34 : BubbaBear_31
- Track 35 : Finalfrontier_32
- Track 36 : Huwbert_64

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

The start number called the most often in the published annotations is 5, it was called in 26 of the 47 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Albedo_32, AnnaLie_33, Arroyo_32, Avocadoman_31, BabyDaisy_31, Bengal_32, BubbaBear_31, Burritobowl_31, CupcakePrincess_32, DickRichards_31, Didgeridoo_33, Doobus_31, IndyLu_31, Jabb_32, Jovita_32, Kate33_30, Lahqtemish_31, Lilo27_32, LimaBean_31, Milomuff_32, Nicky22_33, PastaFagioli_31, SansAfet_32, SarBear_31, Swervy_32, TukTuk_32,

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

- Abigail_31, Cashington_30, Eula_32, Finalfrontier_32, Johnathan_31, Kenzers_32, Lynlen_32, Pecas_32, PhigPhack_32, Phisb_32, QMacho_33, Slay_32, Softsoap_31, Solea_33,

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

- ChiliPepper_28, CliffHanger_34, Dismas_29, Huwburt_64, Kamdara_29, Kieran_29, Quenya_30, Sharkboy_30, Shayna_32, SunnyD_32, Teagster_33, WalkingDead_33,

Summary by start number:

Start 5:

- Found in 40 of 52 (76.9%) of genes in pham
- Manual Annotations of this start: 26 of 47
- Called 65.0% of time when present
- Phage (with cluster) where this start called: Albedo_32 (EB), AnnaLie_33 (EB), Arroyo_32 (EB), Avocadoman_31 (EB), BabyDaisy_31 (EB), Bengal_32 (EB), BubbaBear_31 (EB), Burritobowl_31 (EB), CupcakePrincess_32 (EB), DickRichards_31 (EB), Didgeridoo_33 (EB), Doobus_31 (EB), IndyLu_31 (EB), Jabb_32 (EB), Jovita_32 (EB), Kate33_30 (EB), Lahqtemish_31 (EB), Lilo27_32 (EB), LimaBean_31 (EB), Milomuff_32 (EB), Nicky22_33 (EB), PastaFagioli_31 (EB), SansAfet_32 (EB), SarBear_31 (EB), Swervy_32 (EB), TukTuk_32 (EB),

Start 7:

- Found in 1 of 52 (1.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: WalkingDead_33 (EB),

Start 8:

- Found in 5 of 52 (9.6%) of genes in pham
- Manual Annotations of this start: 2 of 47
- Called 60.0% of time when present
- Phage (with cluster) where this start called: ChiliPepper_28 (EB), Kamdara_29 (EB), Kieran_29 (EB),

Start 10:

- Found in 32 of 52 (61.5%) of genes in pham
- No Manual Annotations of this start.
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Cashington_30 (EB), Solea_33 (EB),

Start 11:

- Found in 4 of 52 (7.7%) of genes in pham
- Manual Annotations of this start: 4 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CliffHanger_34 (EB), Shayna_32 (EB), SunnyD_32 (EB), Teagster_33 (EB),

Start 12:

- Found in 42 of 52 (80.8%) of genes in pham
- Manual Annotations of this start: 13 of 47
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Abigail_31 (EB), Dismas_29 (EB), Eula_32 (EB), Finalfrontier_32 (EB), Huwbert_64 (GG), Johnathan_31 (EB), Pecas_32 (EB), PhigPhack_32 (EB), Phisb_32 (EB), QMacho_33 (EB), Quenya_30 (EB), Sharkboy_30 (EB), Slay_32 (EB), Softsoap_31 (EB),

Start 13:

- Found in 5 of 52 (9.6%) of genes in pham
- Manual Annotations of this start: 1 of 47
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Lynlen_32 (EB),

Start 14:

- Found in 5 of 52 (9.6%) of genes in pham
- Manual Annotations of this start: 1 of 47
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Kenzers_32 (EB),

Summary by clusters:

There are 2 clusters represented in this pham: GG, EB,

Info for manual annotations of cluster EB:

- Start number 5 was manually annotated 26 times for cluster EB.
- Start number 8 was manually annotated 2 times for cluster EB.
- Start number 11 was manually annotated 4 times for cluster EB.
- Start number 12 was manually annotated 12 times for cluster EB.
- Start number 13 was manually annotated 1 time for cluster EB.
- Start number 14 was manually annotated 1 time for cluster EB.

Info for manual annotations of cluster GG:

- Start number 12 was manually annotated 1 time for cluster GG.

Gene Information:

Gene: Abigail_31 Start: 22628, Stop: 23164, Start Num: 12

Candidate Starts for Abigail_31:

(2, 22316), (4, 22412), (Start: 5 @22511 has 26 MA's), (10, 22619), (Start: 12 @22628 has 13 MA's), (22, 22736), (29, 22793), (32, 22823), (33, 22829), (38, 22895), (44, 23000),

Gene: Albedo_32 Start: 22977, Stop: 23642, Start Num: 5

Candidate Starts for Albedo_32:

(1, 22641), (4, 22878), (Start: 5 @22977 has 26 MA's), (Start: 13 @23085 has 1 MA's), (Start: 14 @23094 has 1 MA's), (17, 23118), (37, 23346), (38, 23349), (45, 23502), (52, 23547),

Gene: AnnaLie_33 Start: 23260, Stop: 23925, Start Num: 5

Candidate Starts for AnnaLie_33:

(4, 23161), (Start: 5 @23260 has 26 MA's), (Start: 13 @23368 has 1 MA's), (Start: 14 @23377 has 1 MA's), (17, 23401), (37, 23629), (38, 23632), (45, 23785), (52, 23830),

Gene: Arroyo_32 Start: 23288, Stop: 23941, Start Num: 5

Candidate Starts for Arroyo_32:

(2, 23093), (4, 23189), (Start: 5 @23288 has 26 MA's), (10, 23396), (Start: 12 @23405 has 13 MA's), (22, 23513), (29, 23570), (32, 23600), (33, 23606), (38, 23672),

Gene: Avocadoman_31 Start: 22453, Stop: 23106, Start Num: 5

Candidate Starts for Avocadoman_31:

(2, 22258), (4, 22354), (Start: 5 @22453 has 26 MA's), (10, 22561), (Start: 12 @22570 has 13 MA's), (22, 22678), (29, 22735), (32, 22765), (33, 22771), (38, 22837), (44, 22942),

Gene: BabyDaisy_31 Start: 22831, Stop: 23553, Start Num: 5

Candidate Starts for BabyDaisy_31:

(Start: 5 @22831 has 26 MA's), (10, 22939), (Start: 12 @22948 has 13 MA's), (16, 23002), (36, 23245), (39, 23284), (40, 23299), (43, 23365), (45, 23413),

Gene: Bengal_32 Start: 22846, Stop: 23553, Start Num: 5

Candidate Starts for Bengal_32:

(2, 22651), (4, 22747), (Start: 5 @22846 has 26 MA's), (10, 22954), (Start: 12 @22963 has 13 MA's), (16, 23017), (36, 23260), (39, 23299), (46, 23431), (52, 23473),

Gene: BubbaBear_31 Start: 22778, Stop: 23494, Start Num: 5

Candidate Starts for BubbaBear_31:

(Start: 5 @22778 has 26 MA's), (10, 22886), (Start: 12 @22895 has 13 MA's), (16, 22949), (36, 23192), (39, 23231), (40, 23246),

Gene: Burritobowl_31 Start: 22845, Stop: 23498, Start Num: 5

Candidate Starts for Burritobowl_31:

(2, 22650), (4, 22746), (Start: 5 @22845 has 26 MA's), (10, 22953), (Start: 12 @22962 has 13 MA's), (22, 23070), (29, 23127), (32, 23157), (33, 23163), (38, 23229), (44, 23334),

Gene: Cashington_30 Start: 22242, Stop: 22841, Start Num: 10

Candidate Starts for Cashington_30:

(2, 21939), (4, 22035), (Start: 5 @22134 has 26 MA's), (10, 22242), (Start: 12 @22251 has 13 MA's), (16, 22305), (36, 22548), (39, 22587), (46, 22719),

Gene: ChiliPepper_28 Start: 23178, Stop: 23786, Start Num: 8

Candidate Starts for ChiliPepper_28:

(Start: 8 @23178 has 2 MA's), (Start: 12 @23214 has 13 MA's), (16, 23268), (30, 23379), (34, 23433), (36, 23469), (40, 23523), (45, 23637), (53, 23691),

Gene: CliffHanger_34 Start: 22466, Stop: 22987, Start Num: 11

Candidate Starts for CliffHanger_34:

(Start: 11 @22466 has 4 MA's), (22, 22574), (29, 22631), (32, 22661), (33, 22667), (38, 22733), (41, 22793), (48, 22889), (50, 22907), (53, 22922), (54, 22937), (59, 22976),

Gene: CupcakePrincess_32 Start: 22975, Stop: 23676, Start Num: 5

Candidate Starts for CupcakePrincess_32:

(1, 22639), (4, 22876), (Start: 5 @22975 has 26 MA's), (Start: 12 @23092 has 13 MA's), (17, 23152), (19, 23173), (21, 23212), (27, 23254), (37, 23383), (38, 23386), (39, 23410), (45, 23539),

Gene: DickRichards_31 Start: 23174, Stop: 23827, Start Num: 5

Candidate Starts for DickRichards_31:

(2, 22979), (4, 23075), (Start: 5 @23174 has 26 MA's), (10, 23282), (Start: 12 @23291 has 13 MA's), (22, 23399), (29, 23456), (32, 23486), (33, 23492), (38, 23558), (44, 23663),

Gene: Didgeridoo_33 Start: 23183, Stop: 23950, Start Num: 5

Candidate Starts for Didgeridoo_33:

(Start: 5 @23183 has 26 MA's), (10, 23291), (Start: 12 @23300 has 13 MA's), (16, 23354), (34, 23561), (36, 23597), (39, 23636), (40, 23651), (51, 23807), (57, 23867), (58, 23873),

Gene: Dismas_29 Start: 23391, Stop: 23957, Start Num: 12

Candidate Starts for Dismas_29:

(6, 23304), (Start: 8 @23355 has 2 MA's), (Start: 12 @23391 has 13 MA's), (16, 23445), (30, 23550), (34, 23604), (36, 23640), (40, 23694), (45, 23808), (53, 23862), (56, 23895),

Gene: Doobus_31 Start: 22620, Stop: 23273, Start Num: 5

Candidate Starts for Doobus_31:

(2, 22425), (4, 22521), (Start: 5 @22620 has 26 MA's), (10, 22728), (Start: 12 @22737 has 13 MA's), (22, 22845), (29, 22902), (32, 22932), (33, 22938), (38, 23004), (44, 23109),

Gene: Eula_32 Start: 23053, Stop: 23589, Start Num: 12

Candidate Starts for Eula_32:

(Start: 5 @22936 has 26 MA's), (10, 23044), (Start: 12 @23053 has 13 MA's), (20, 23122), (22, 23161), (29, 23218), (32, 23248), (33, 23254), (38, 23320), (53, 23515), (55, 23533),

Gene: Finalfrontier_32 Start: 23664, Stop: 24200, Start Num: 12

Candidate Starts for Finalfrontier_32:

(2, 23352), (4, 23448), (Start: 5 @23547 has 26 MA's), (10, 23655), (Start: 12 @23664 has 13 MA's), (22, 23772), (29, 23829), (32, 23859), (33, 23865), (38, 23931), (44, 24036),

Gene: Huwbert_64 Start: 39565, Stop: 40128, Start Num: 12

Candidate Starts for Huwbert_64:

(Start: 12 @39565 has 13 MA's), (18, 39613), (25, 39721), (26, 39724), (31, 39766), (35, 39817), (36, 39847), (37, 39859), (48, 40030), (53, 40069),

Gene: IndyLu_31 Start: 22792, Stop: 23514, Start Num: 5

Candidate Starts for IndyLu_31:

(Start: 5 @22792 has 26 MA's), (10, 22900), (Start: 12 @22909 has 13 MA's), (16, 22963), (36, 23206), (39, 23245), (40, 23260), (43, 23326), (45, 23374),

Gene: Jabb_32 Start: 22975, Stop: 23676, Start Num: 5

Candidate Starts for Jabb_32:

(1, 22639), (4, 22876), (Start: 5 @22975 has 26 MA's), (Start: 12 @23092 has 13 MA's), (17, 23152), (19, 23173), (21, 23212), (27, 23254), (37, 23383), (38, 23386), (39, 23410), (45, 23539),

Gene: Johnathan_31 Start: 22510, Stop: 23046, Start Num: 12

Candidate Starts for Johnathan_31:

(2, 22198), (4, 22294), (Start: 5 @22393 has 26 MA's), (10, 22501), (Start: 12 @22510 has 13 MA's), (22, 22618), (29, 22675), (32, 22705), (33, 22711), (38, 22777), (44, 22882),

Gene: Jovita_32 Start: 23039, Stop: 23692, Start Num: 5

Candidate Starts for Jovita_32:

(1, 22703), (4, 22940), (Start: 5 @23039 has 26 MA's), (10, 23147), (Start: 12 @23156 has 13 MA's), (20, 23225), (22, 23264), (29, 23321), (32, 23351), (33, 23357), (38, 23423),

Gene: Kamdara_29 Start: 23354, Stop: 23962, Start Num: 8

Candidate Starts for Kamdara_29:

(6, 23303), (Start: 8 @23354 has 2 MA's), (Start: 12 @23390 has 13 MA's), (16, 23444), (30, 23555), (34, 23609), (36, 23645), (40, 23699), (45, 23813), (53, 23867), (56, 23900),

Gene: Kate33_30 Start: 22654, Stop: 23307, Start Num: 5

Candidate Starts for Kate33_30:

(Start: 5 @22654 has 26 MA's), (10, 22762), (Start: 12 @22771 has 13 MA's), (22, 22879), (29, 22936), (32, 22966), (33, 22972), (38, 23038), (44, 23143),

Gene: Kenzers_32 Start: 23043, Stop: 23639, Start Num: 14

Candidate Starts for Kenzers_32:

(1, 22590), (4, 22827), (Start: 5 @22926 has 26 MA's), (Start: 13 @23034 has 1 MA's), (Start: 14 @23043 has 1 MA's), (17, 23067), (23, 23139), (37, 23295), (38, 23298), (45, 23451), (56, 23535),

Gene: Kieran_29 Start: 23358, Stop: 23966, Start Num: 8

Candidate Starts for Kieran_29:

(6, 23307), (Start: 8 @23358 has 2 MA's), (Start: 12 @23394 has 13 MA's), (16, 23448), (30, 23559), (34, 23613), (36, 23649), (40, 23703), (45, 23817), (53, 23871), (56, 23904),

Gene: Lahqtemish_31 Start: 22843, Stop: 23547, Start Num: 5

Candidate Starts for Lahqtemish_31:

(2, 22648), (4, 22744), (Start: 5 @22843 has 26 MA's), (Start: 12 @22960 has 13 MA's), (17, 23020), (19, 23041), (24, 23098), (27, 23122), (37, 23251), (38, 23254), (45, 23407),

Gene: Lilo27_32 Start: 22847, Stop: 23500, Start Num: 5

Candidate Starts for Lilo27_32:

(1, 22511), (4, 22748), (Start: 5 @22847 has 26 MA's), (10, 22955), (Start: 12 @22964 has 13 MA's), (20, 23033), (22, 23072), (29, 23129), (32, 23159), (33, 23165), (38, 23231), (53, 23426),

Gene: LimaBean_31 Start: 22389, Stop: 23042, Start Num: 5

Candidate Starts for LimaBean_31:

(2, 22194), (4, 22290), (Start: 5 @22389 has 26 MA's), (10, 22497), (Start: 12 @22506 has 13 MA's), (22, 22614), (29, 22671), (32, 22701), (33, 22707), (38, 22773), (44, 22878),

Gene: Lynlen_32 Start: 23034, Stop: 23639, Start Num: 13

Candidate Starts for Lynlen_32:

(4, 22827), (Start: 5 @22926 has 26 MA's), (Start: 13 @23034 has 1 MA's), (Start: 14 @23043 has 1 MA's), (17, 23067), (23, 23139), (37, 23295), (38, 23298), (45, 23451), (56, 23535),

Gene: Milomuff_32 Start: 22754, Stop: 23407, Start Num: 5

Candidate Starts for Milomuff_32:

(2, 22559), (4, 22655), (Start: 5 @22754 has 26 MA's), (10, 22862), (Start: 12 @22871 has 13 MA's), (22, 22979), (29, 23036), (32, 23066), (33, 23072), (38, 23138), (44, 23243),

Gene: Nicky22_33 Start: 23401, Stop: 24054, Start Num: 5

Candidate Starts for Nicky22_33:

(1, 23065), (4, 23302), (Start: 5 @23401 has 26 MA's), (10, 23509), (Start: 12 @23518 has 13 MA's), (20, 23587), (22, 23626), (29, 23683), (32, 23713), (33, 23719), (38, 23785),

Gene: PastaFagioli_31 Start: 22828, Stop: 23532, Start Num: 5

Candidate Starts for PastaFagioli_31:

(2, 22633), (3, 22723), (4, 22729), (Start: 5 @22828 has 26 MA's), (10, 22936), (Start: 12 @22945 has 13 MA's), (17, 23005), (19, 23026), (24, 23083), (27, 23107), (37, 23236), (38, 23239),

Gene: Pecas_32 Start: 23053, Stop: 23589, Start Num: 12

Candidate Starts for Pecas_32:

(Start: 5 @22936 has 26 MA's), (10, 23044), (Start: 12 @23053 has 13 MA's), (20, 23122), (22, 23161), (29, 23218), (32, 23248), (33, 23254), (38, 23320), (53, 23515), (55, 23533),

Gene: PhigPhack_32 Start: 22873, Stop: 23409, Start Num: 12

Candidate Starts for PhigPhack_32:

(4, 22657), (Start: 5 @22756 has 26 MA's), (10, 22864), (Start: 12 @22873 has 13 MA's), (22, 22981), (29, 23038), (32, 23068), (33, 23074), (38, 23140), (44, 23245),

Gene: Phisb_32 Start: 23109, Stop: 23645, Start Num: 12

Candidate Starts for Phisb_32:

(1, 22656), (4, 22893), (Start: 5 @22992 has 26 MA's), (10, 23100), (Start: 12 @23109 has 13 MA's), (20, 23178), (22, 23217), (29, 23274), (32, 23304), (33, 23310), (38, 23376), (44, 23481),

Gene: QMacho_33 Start: 23536, Stop: 24072, Start Num: 12

Candidate Starts for QMacho_33:

(Start: 5 @23419 has 26 MA's), (10, 23527), (Start: 12 @23536 has 13 MA's), (20, 23605), (22, 23644), (29, 23701), (32, 23731), (33, 23737), (38, 23803), (53, 23998), (55, 24016),

Gene: Quenya_30 Start: 23232, Stop: 23762, Start Num: 12

Candidate Starts for Quenya_30:

(Start: 12 @23232 has 13 MA's), (15, 23256), (22, 23340), (29, 23397), (32, 23427), (33, 23433), (36, 23484), (38, 23499), (42, 23562), (44, 23604), (49, 23661),

Gene: SansAfet_32 Start: 22861, Stop: 23514, Start Num: 5

Candidate Starts for SansAfet_32:

(2, 22666), (4, 22762), (Start: 5 @22861 has 26 MA's), (10, 22969), (Start: 12 @22978 has 13 MA's), (22, 23086), (29, 23143), (32, 23173), (33, 23179), (38, 23245), (44, 23350),

Gene: SarBear_31 Start: 22749, Stop: 23402, Start Num: 5

Candidate Starts for SarBear_31:

(1, 22413), (4, 22650), (Start: 5 @22749 has 26 MA's), (10, 22857), (Start: 12 @22866 has 13 MA's), (20, 22935), (22, 22974), (29, 23031), (32, 23061), (33, 23067), (38, 23133),

Gene: Sharkboy_30 Start: 23475, Stop: 24047, Start Num: 12

Candidate Starts for Sharkboy_30:

(Start: 8 @23439 has 2 MA's), (Start: 12 @23475 has 13 MA's), (16, 23529), (30, 23640), (34, 23694), (36, 23730), (40, 23784), (45, 23898), (53, 23952),

Gene: Shayna_32 Start: 22699, Stop: 23253, Start Num: 11

Candidate Starts for Shayna_32:

(Start: 11 @22699 has 4 MA's), (22, 22810), (29, 22867), (32, 22897), (33, 22903), (38, 22969), (42, 23032), (45, 23119),

Gene: Slay_32 Start: 23514, Stop: 24050, Start Num: 12

Candidate Starts for Slay_32:

(1, 23061), (4, 23298), (Start: 5 @23397 has 26 MA's), (10, 23505), (Start: 12 @23514 has 13 MA's), (20, 23583), (22, 23622), (29, 23679), (32, 23709), (33, 23715), (38, 23781),

Gene: Softsoap_31 Start: 22801, Stop: 23400, Start Num: 12

Candidate Starts for Softsoap_31:

(Start: 5 @22684 has 26 MA's), (10, 22792), (Start: 12 @22801 has 13 MA's), (16, 22855), (36, 23098), (39, 23137), (40, 23152),

Gene: Solea_33 Start: 22862, Stop: 23407, Start Num: 10

Candidate Starts for Solea_33:

(2, 22559), (4, 22655), (Start: 5 @22754 has 26 MA's), (10, 22862), (Start: 12 @22871 has 13 MA's), (22, 22979), (29, 23036), (32, 23066), (33, 23072), (38, 23138), (44, 23243),

Gene: SunnyD_32 Start: 22741, Stop: 23256, Start Num: 11

Candidate Starts for SunnyD_32:

(Start: 11 @22741 has 4 MA's), (22, 22852), (32, 22939), (33, 22945), (38, 23011), (42, 23074), (54, 23212),

Gene: Swervy_32 Start: 22916, Stop: 23569, Start Num: 5

Candidate Starts for Swervy_32:

(1, 22580), (4, 22817), (Start: 5 @22916 has 26 MA's), (10, 23024), (Start: 12 @23033 has 13 MA's), (20, 23102), (22, 23141), (29, 23198), (32, 23228), (33, 23234), (38, 23300),

Gene: Teagster_33 Start: 23532, Stop: 24086, Start Num: 11

Candidate Starts for Teagster_33:

(Start: 11 @23532 has 4 MA's), (22, 23643), (29, 23700), (32, 23730), (33, 23736), (38, 23802),

Gene: TukTuk_32 Start: 22975, Stop: 23640, Start Num: 5

Candidate Starts for TukTuk_32:

(1, 22639), (4, 22876), (Start: 5 @22975 has 26 MA's), (Start: 13 @23083 has 1 MA's), (Start: 14 @23092 has 1 MA's), (17, 23116), (37, 23344), (38, 23347), (45, 23500), (52, 23545),

Gene: WalkingDead_33 Start: 24355, Stop: 24960, Start Num: 7

Candidate Starts for WalkingDead_33:

(7, 24355), (9, 24364), (17, 24439), (19, 24460), (23, 24511), (28, 24544), (37, 24667), (38, 24670), (45, 24823), (47, 24832),