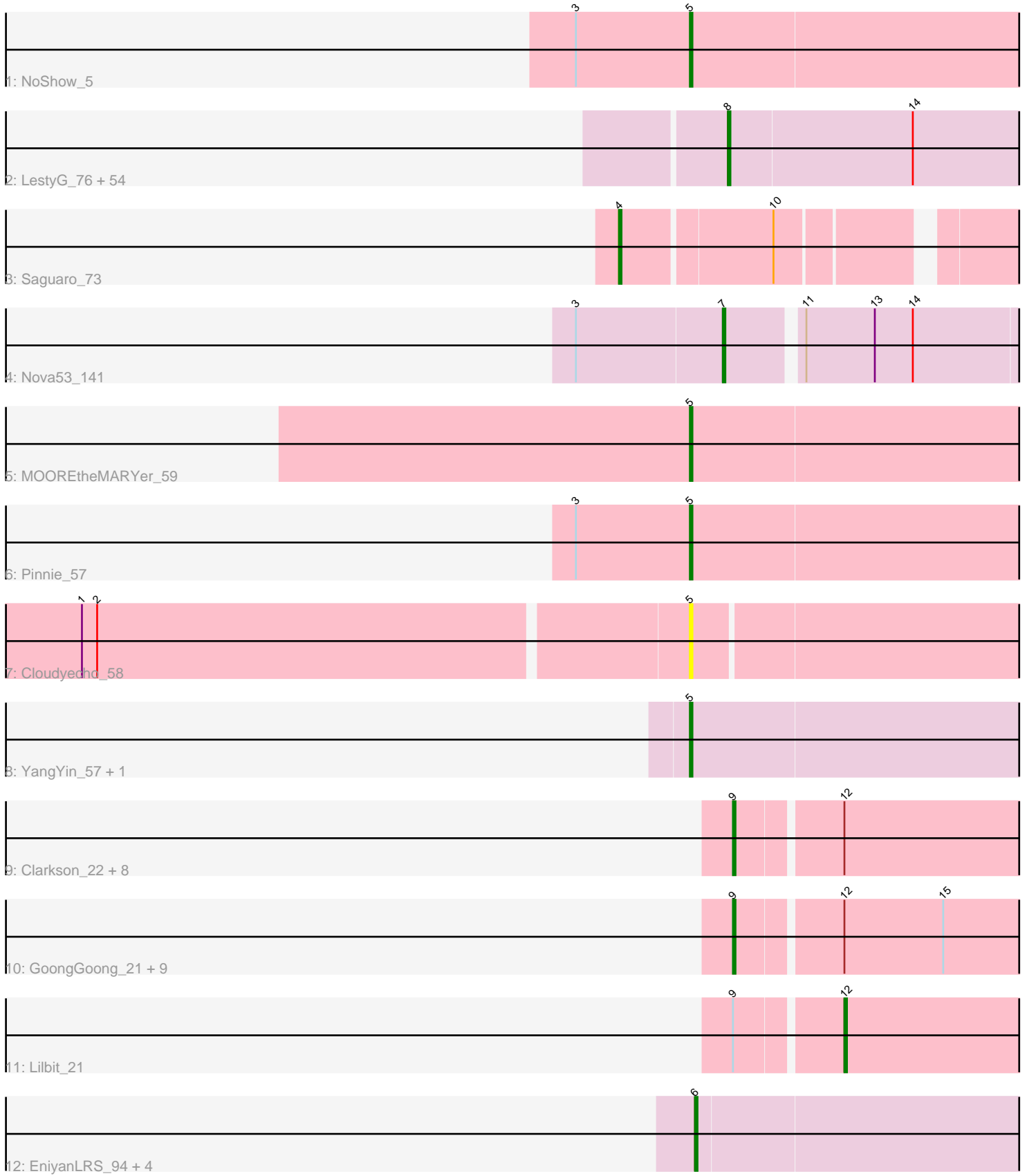


Pham 292709



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 292709 Report

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

Pham number 292709 has 88 members, 8 are drafts.

Phages represented in each track:

- Track 1 : NoShow_5
- Track 2 : LestyG_76, Daisy_77, TinyTerror_79, Athena_80, Phlyer_78, Briakila_78, Neos5_78, Heathcliff_78, Chandler_78, Compostia_77, Tydolla_74, Gadget_79, Jackstina_73, Abinghost_78, Deenasa_78, Chalmers_77, Philly_77, Kronus_78, ChaChing_78, Olivio_78, Marlia_79, Yahalom_76, Phayeta_81, Chentzyk_80, Bernardo_79, MmasiCarm_79, Yinz_78, Mulaychimus_79, Corofin_78, Baloo_77, Akoma_78, Casbah_78, RomaT_78, Kamiyu_78, Nozo_78, Halfpint_77, GlenHope_79, Shenandoah_77, Phaedrus_73, RagingRooster_77, Pipefish_80, OrangeOswald_78, Gervas_79, Ben11_78, SwainyDoc_79, HarveySr_77, Audrey_78, Obutu_80, Devonte_77, Morty007_77, Rita1961_79, Marley1013_79, Glubnar_79, Mortcellus_78, SynergyX_78
- Track 3 : Saguaro_73
- Track 4 : Nova53_141
- Track 5 : MOOREtheMARYer_59
- Track 6 : Pinnie_57
- Track 7 : Cloudyecho_58
- Track 8 : YangYin_57, Stargaze_57
- Track 9 : Clarkson_22, LittleLaf_21, Pringar_21, VasuNzinga_20, FeliMaine_22, JoieB_22, Beelzebub_25, Marvin_20, Corazon_20
- Track 10 : GoongGoong_21, Blackbeetle_22, Poise_22, Huphlepuuff_23, Gattaca_21, Raela_22, Tesla_21, MosMoris_20, Caprice_18, RedRaider77_22
- Track 11 : Lilbit_21
- Track 12 : EniyanLRS_94, Azrael100_96, MaryV_99, Cosmo_97, Wildcat_99

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

The start number called the most often in the published annotations is 8, it was called in 50 of the 80 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost_78, Akoma_78, Athena_80, Audrey_78, Baloo_77, Ben11_78, Bernardo_79, Briakila_78, Casbah_78, ChaChing_78, Chalmers_77, Chandler_78, Chentzyk_80, Compostia_77, Corofin_78, Daisy_77, Deenasa_78, Devonte_77, Gadget_79, Gervas_79, GlenHope_79, Glubnar_79, Halfpint_77, HarveySr_77,

Heathcliff_78, Jackstina_73, Kamiyu_78, Kronus_78, LestyG_76, Marley1013_79, Marlia_79, MmasiCarm_79, Mortcellus_78, Morty007_77, Mulaychimus_79, Neos5_78, Nozo_78, Obutu_80, Olivio_78, OrangeOswald_78, Phaedrus_73, Phayeta_81, Philly_77, Phlyer_78, Pipefish_80, RagingRooster_77, Rita1961_79, RomaT_78, Shenandoah_77, SwainyDoc_79, SynergyX_78, TinyTerror_79, Tydolla_74, Yahalom_76, Yinz_78,

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

-

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

- Azrael100_96, Beelzebub_25, Blackbeetle_22, Caprice_18, Clarkson_22, Cloudyecho_58, Corazon_20, Cosmo_97, EniyanLRS_94, FeliMaine_22, Gattaca_21, GoongGoong_21, Huphlepuuff_23, JoieB_22, Lilbit_21, LittleLaf_21, MOOREtheMARYer_59, Marvin_20, MaryV_99, MosMoris_20, NoShow_5, Nova53_141, Pinnie_57, Poise_22, Pringar_21, Raela_22, RedRaider77_22, Saguaro_73, Stargaze_57, Tesla_21, VasuNzinga_20, Wildcat_99, YangYin_57,

Summary by start number:

Start 4:

- Found in 1 of 88 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Saguaro_73 (B7),

Start 5:

- Found in 6 of 88 (6.8%) of genes in pham
- Manual Annotations of this start: 4 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cloudyecho_58 (G3), MOOREtheMARYer_59 (G3), NoShow_5 (AB), Pinnie_57 (G3), Stargaze_57 (G5), YangYin_57 (G5),

Start 6:

- Found in 5 of 88 (5.7%) of genes in pham
- Manual Annotations of this start: 5 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100_96 (V), Cosmo_97 (V), EniyanLRS_94 (V), MaryV_99 (V), Wildcat_99 (V),

Start 7:

- Found in 1 of 88 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nova53_141 (CG),

Start 8:

- Found in 55 of 88 (62.5%) of genes in pham
- Manual Annotations of this start: 50 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abinghost_78 (B3), Akoma_78 (B3), Athena_80 (B3), Audrey_78 (B3), Baloo_77 (B3), Ben11_78 (B3), Bernardo_79 (B3),

Briakila_78 (B3), Casbah_78 (B3), ChaChing_78 (B3), Chalmers_77 (B3), Chandler_78 (B3), Chentzyk_80 (B3), Compostia_77 (B3), Corofin_78 (B3), Daisy_77 (B3), Deenasa_78 (B3), Devonte_77 (B3), Gadget_79 (B3), Gervas_79 (B3), GlenHope_79 (B3), Glubnar_79 (B3), Halfpint_77 (B3), HarveySr_77 (B3), Heathcliff_78 (B3), Jackstina_73 (B3), Kamiyu_78 (B3), Kronus_78 (B3), LestyG_76 (B3), Marley1013_79 (B3), Marlia_79 (B3), MmasiCarm_79 (B3), Mortcellus_78 (B3), Morty007_77 (B3), Mulaychimus_79 (B3), Neos5_78 (B3), Nozo_78 (B3), Obutu_80 (B3), Olivio_78 (B3), OrangeOswald_78 (B3), Phaedrus_73 (B3), Phayeta_81 (B3), Philly_77 (B3), Phlyer_78 (B3), Pipefish_80 (B3), RagingRooster_77 (B3), Rita1961_79 (B3), RomaT_78 (B3), Shenandoah_77 (B3), SwainyDoc_79 (B3), SynergyX_78 (B3), TinyTerror_79 (B3), Tydolla_74 (B3), Yahalom_76 (B3), Yinz_78 (B3),

Start 9:

- Found in 20 of 88 (22.7%) of genes in pham
- Manual Annotations of this start: 18 of 80
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Beelzebub_25 (S), Blackbeetle_22 (S), Caprice_18 (S), Clarkson_22 (S), Corazon_20 (S), FeliMaine_22 (S), Gattaca_21 (S), GoongGoong_21 (S), Huphlepuuff_23 (S), JoieB_22 (S), LittleLaf_21 (S), Marvin_20 (S), MosMoris_20 (S), Poise_22 (S), Pringar_21 (S), Raela_22 (S), RedRaider77_22 (S), Tesla_21 (S), VasuNzinga_20 (S),

Start 12:

- Found in 20 of 88 (22.7%) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 5.0% of time when present
- Phage (with cluster) where this start called: Lilbit_21 (S),

Summary by clusters:

There are 8 clusters represented in this pham: G5, AB, G3, B3, CG, S, B7, V,

Info for manual annotations of cluster AB:

- Start number 5 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster B3:

- Start number 8 was manually annotated 50 times for cluster B3.

Info for manual annotations of cluster B7:

- Start number 4 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster CG:

- Start number 7 was manually annotated 1 time for cluster CG.

Info for manual annotations of cluster G3:

- Start number 5 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G5:

- Start number 5 was manually annotated 1 time for cluster G5.

Info for manual annotations of cluster S:

- Start number 9 was manually annotated 18 times for cluster S.

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

Info for manual annotations of cluster V:

- Start number 6 was manually annotated 5 times for cluster V.

Gene Information:

Gene: Abinghost_78 Start: 60573, Stop: 60385, Start Num: 8

Candidate Starts for Abinghost_78:

(Start: 8 @60573 has 50 MA's), (14, 60501),

Gene: Akoma_78 Start: 60613, Stop: 60425, Start Num: 8

Candidate Starts for Akoma_78:

(Start: 8 @60613 has 50 MA's), (14, 60541),

Gene: Athena_80 Start: 61348, Stop: 61160, Start Num: 8

Candidate Starts for Athena_80:

(Start: 8 @61348 has 50 MA's), (14, 61276),

Gene: Audrey_78 Start: 60602, Stop: 60414, Start Num: 8

Candidate Starts for Audrey_78:

(Start: 8 @60602 has 50 MA's), (14, 60530),

Gene: Azrael100_96 Start: 57539, Stop: 57703, Start Num: 6

Candidate Starts for Azrael100_96:

(Start: 6 @57539 has 5 MA's),

Gene: Baloo_77 Start: 60454, Stop: 60266, Start Num: 8

Candidate Starts for Baloo_77:

(Start: 8 @60454 has 50 MA's), (14, 60382),

Gene: Beelzebub_25 Start: 6549, Stop: 6704, Start Num: 9

Candidate Starts for Beelzebub_25:

(Start: 9 @6549 has 18 MA's), (Start: 12 @6588 has 1 MA's),

Gene: Ben11_78 Start: 60829, Stop: 60641, Start Num: 8

Candidate Starts for Ben11_78:

(Start: 8 @60829 has 50 MA's), (14, 60757),

Gene: Bernardo_79 Start: 60792, Stop: 60604, Start Num: 8

Candidate Starts for Bernardo_79:

(Start: 8 @60792 has 50 MA's), (14, 60720),

Gene: Blackbeetle_22 Start: 5882, Stop: 6037, Start Num: 9

Candidate Starts for Blackbeetle_22:

(Start: 9 @5882 has 18 MA's), (Start: 12 @5921 has 1 MA's), (15, 5960),

Gene: Briakila_78 Start: 60800, Stop: 60612, Start Num: 8

Candidate Starts for Briakila_78:

(Start: 8 @60800 has 50 MA's), (14, 60728),

Gene: Caprice_18 Start: 5113, Stop: 5268, Start Num: 9
Candidate Starts for Caprice_18:
(Start: 9 @5113 has 18 MA's), (Start: 12 @5152 has 1 MA's), (15, 5191),

Gene: Casbah_78 Start: 60913, Stop: 60725, Start Num: 8
Candidate Starts for Casbah_78:
(Start: 8 @60913 has 50 MA's), (14, 60841),

Gene: ChaChing_78 Start: 60618, Stop: 60430, Start Num: 8
Candidate Starts for ChaChing_78:
(Start: 8 @60618 has 50 MA's), (14, 60546),

Gene: Chalmers_77 Start: 61048, Stop: 60860, Start Num: 8
Candidate Starts for Chalmers_77:
(Start: 8 @61048 has 50 MA's), (14, 60976),

Gene: Chandler_78 Start: 61389, Stop: 61201, Start Num: 8
Candidate Starts for Chandler_78:
(Start: 8 @61389 has 50 MA's), (14, 61317),

Gene: Chentzyk_80 Start: 61556, Stop: 61368, Start Num: 8
Candidate Starts for Chentzyk_80:
(Start: 8 @61556 has 50 MA's), (14, 61484),

Gene: Clarkson_22 Start: 6250, Stop: 6405, Start Num: 9
Candidate Starts for Clarkson_22:
(Start: 9 @6250 has 18 MA's), (Start: 12 @6289 has 1 MA's),

Gene: Cloudyecho_58 Start: 41162, Stop: 41344, Start Num: 5
Candidate Starts for Cloudyecho_58:
(1, 40928), (2, 40934), (Start: 5 @41162 has 4 MA's),

Gene: Compostia_77 Start: 61058, Stop: 60870, Start Num: 8
Candidate Starts for Compostia_77:
(Start: 8 @61058 has 50 MA's), (14, 60986),

Gene: Corazon_20 Start: 6203, Stop: 6358, Start Num: 9
Candidate Starts for Corazon_20:
(Start: 9 @6203 has 18 MA's), (Start: 12 @6242 has 1 MA's),

Gene: Corofin_78 Start: 60624, Stop: 60436, Start Num: 8
Candidate Starts for Corofin_78:
(Start: 8 @60624 has 50 MA's), (14, 60552),

Gene: Cosmo_97 Start: 57537, Stop: 57701, Start Num: 6
Candidate Starts for Cosmo_97:
(Start: 6 @57537 has 5 MA's),

Gene: Daisy_77 Start: 60175, Stop: 59987, Start Num: 8
Candidate Starts for Daisy_77:
(Start: 8 @60175 has 50 MA's), (14, 60103),

Gene: Deenasa_78 Start: 61524, Stop: 61336, Start Num: 8

Candidate Starts for Deenasa_78:
(Start: 8 @61524 has 50 MA's), (14, 61452),

Gene: Devonte_77 Start: 60240, Stop: 60052, Start Num: 8
Candidate Starts for Devonte_77:
(Start: 8 @60240 has 50 MA's), (14, 60168),

Gene: EniyanLRS_94 Start: 57534, Stop: 57698, Start Num: 6
Candidate Starts for EniyanLRS_94:
(Start: 6 @57534 has 5 MA's),

Gene: FeliMaine_22 Start: 6251, Stop: 6406, Start Num: 9
Candidate Starts for FeliMaine_22:
(Start: 9 @6251 has 18 MA's), (Start: 12 @6290 has 1 MA's),

Gene: Gadjet_79 Start: 60975, Stop: 60787, Start Num: 8
Candidate Starts for Gadjet_79:
(Start: 8 @60975 has 50 MA's), (14, 60903),

Gene: Gattaca_21 Start: 5771, Stop: 5926, Start Num: 9
Candidate Starts for Gattaca_21:
(Start: 9 @5771 has 18 MA's), (Start: 12 @5810 has 1 MA's), (15, 5849),

Gene: Gervas_79 Start: 61069, Stop: 60881, Start Num: 8
Candidate Starts for Gervas_79:
(Start: 8 @61069 has 50 MA's), (14, 60997),

Gene: GlenHope_79 Start: 60648, Stop: 60460, Start Num: 8
Candidate Starts for GlenHope_79:
(Start: 8 @60648 has 50 MA's), (14, 60576),

Gene: Glubnar_79 Start: 60507, Stop: 60319, Start Num: 8
Candidate Starts for Glubnar_79:
(Start: 8 @60507 has 50 MA's), (14, 60435),

Gene: GoongGoong_21 Start: 5784, Stop: 5939, Start Num: 9
Candidate Starts for GoongGoong_21:
(Start: 9 @5784 has 18 MA's), (Start: 12 @5823 has 1 MA's), (15, 5862),

Gene: Halfpint_77 Start: 60390, Stop: 60202, Start Num: 8
Candidate Starts for Halfpint_77:
(Start: 8 @60390 has 50 MA's), (14, 60318),

Gene: HarveySr_77 Start: 60159, Stop: 59971, Start Num: 8
Candidate Starts for HarveySr_77:
(Start: 8 @60159 has 50 MA's), (14, 60087),

Gene: Heathcliff_78 Start: 60569, Stop: 60381, Start Num: 8
Candidate Starts for Heathcliff_78:
(Start: 8 @60569 has 50 MA's), (14, 60497),

Gene: Huphlepuuff_23 Start: 6055, Stop: 6210, Start Num: 9
Candidate Starts for Huphlepuuff_23:

(Start: 9 @6055 has 18 MA's), (Start: 12 @6094 has 1 MA's), (15, 6133),

Gene: Jackstina_73 Start: 60483, Stop: 60295, Start Num: 8
Candidate Starts for Jackstina_73:
(Start: 8 @60483 has 50 MA's), (14, 60411),

Gene: JoieB_22 Start: 6274, Stop: 6429, Start Num: 9
Candidate Starts for JoieB_22:
(Start: 9 @6274 has 18 MA's), (Start: 12 @6313 has 1 MA's),

Gene: Kamiyu_78 Start: 60572, Stop: 60384, Start Num: 8
Candidate Starts for Kamiyu_78:
(Start: 8 @60572 has 50 MA's), (14, 60500),

Gene: Kronus_78 Start: 61656, Stop: 61468, Start Num: 8
Candidate Starts for Kronus_78:
(Start: 8 @61656 has 50 MA's), (14, 61584),

Gene: LestyG_76 Start: 60142, Stop: 59954, Start Num: 8
Candidate Starts for LestyG_76:
(Start: 8 @60142 has 50 MA's), (14, 60070),

Gene: Lilbit_21 Start: 6290, Stop: 6406, Start Num: 12
Candidate Starts for Lilbit_21:
(Start: 9 @6251 has 18 MA's), (Start: 12 @6290 has 1 MA's),

Gene: LittleLaf_21 Start: 5980, Stop: 6135, Start Num: 9
Candidate Starts for LittleLaf_21:
(Start: 9 @5980 has 18 MA's), (Start: 12 @6019 has 1 MA's),

Gene: MOOREtheMARYer_59 Start: 40807, Stop: 40995, Start Num: 5
Candidate Starts for MOOREtheMARYer_59:
(Start: 5 @40807 has 4 MA's),

Gene: Marley1013_79 Start: 61508, Stop: 61320, Start Num: 8
Candidate Starts for Marley1013_79:
(Start: 8 @61508 has 50 MA's), (14, 61436),

Gene: Marlia_79 Start: 61041, Stop: 60853, Start Num: 8
Candidate Starts for Marlia_79:
(Start: 8 @61041 has 50 MA's), (14, 60969),

Gene: Marvin_20 Start: 6250, Stop: 6405, Start Num: 9
Candidate Starts for Marvin_20:
(Start: 9 @6250 has 18 MA's), (Start: 12 @6289 has 1 MA's),

Gene: MaryV_99 Start: 57945, Stop: 58109, Start Num: 6
Candidate Starts for MaryV_99:
(Start: 6 @57945 has 5 MA's),

Gene: MmasiCarm_79 Start: 61011, Stop: 60823, Start Num: 8
Candidate Starts for MmasiCarm_79:
(Start: 8 @61011 has 50 MA's), (14, 60939),

Gene: Mortcellus_78 Start: 61727, Stop: 61539, Start Num: 8

Candidate Starts for Mortcellus_78:

(Start: 8 @61727 has 50 MA's), (14, 61655),

Gene: Morty007_77 Start: 61508, Stop: 61320, Start Num: 8

Candidate Starts for Morty007_77:

(Start: 8 @61508 has 50 MA's), (14, 61436),

Gene: MosMoris_20 Start: 5771, Stop: 5926, Start Num: 9

Candidate Starts for MosMoris_20:

(Start: 9 @5771 has 18 MA's), (Start: 12 @5810 has 1 MA's), (15, 5849),

Gene: Mulaychimus_79 Start: 61021, Stop: 60833, Start Num: 8

Candidate Starts for Mulaychimus_79:

(Start: 8 @61021 has 50 MA's), (14, 60949),

Gene: Neos5_78 Start: 60970, Stop: 60782, Start Num: 8

Candidate Starts for Neos5_78:

(Start: 8 @60970 has 50 MA's), (14, 60898),

Gene: NoShow_5 Start: 4743, Stop: 4907, Start Num: 5

Candidate Starts for NoShow_5:

(3, 4698), (Start: 5 @4743 has 4 MA's),

Gene: Nova53_141 Start: 86962, Stop: 87084, Start Num: 7

Candidate Starts for Nova53_141:

(3, 86905), (Start: 7 @86962 has 1 MA's), (11, 86989), (13, 87016), (14, 87031),

Gene: Nozo_78 Start: 61379, Stop: 61191, Start Num: 8

Candidate Starts for Nozo_78:

(Start: 8 @61379 has 50 MA's), (14, 61307),

Gene: Obutu_80 Start: 61182, Stop: 60994, Start Num: 8

Candidate Starts for Obutu_80:

(Start: 8 @61182 has 50 MA's), (14, 61110),

Gene: Olivio_78 Start: 60823, Stop: 60635, Start Num: 8

Candidate Starts for Olivio_78:

(Start: 8 @60823 has 50 MA's), (14, 60751),

Gene: OrangeOswald_78 Start: 60613, Stop: 60425, Start Num: 8

Candidate Starts for OrangeOswald_78:

(Start: 8 @60613 has 50 MA's), (14, 60541),

Gene: Phaedrus_73 Start: 60030, Stop: 59842, Start Num: 8

Candidate Starts for Phaedrus_73:

(Start: 8 @60030 has 50 MA's), (14, 59958),

Gene: Phayeta_81 Start: 61099, Stop: 60911, Start Num: 8

Candidate Starts for Phayeta_81:

(Start: 8 @61099 has 50 MA's), (14, 61027),

Gene: Philly_77 Start: 60462, Stop: 60274, Start Num: 8
Candidate Starts for Philly_77:
(Start: 8 @60462 has 50 MA's), (14, 60390),

Gene: Phlyer_78 Start: 61325, Stop: 61137, Start Num: 8
Candidate Starts for Phlyer_78:
(Start: 8 @61325 has 50 MA's), (14, 61253),

Gene: Pinnie_57 Start: 40921, Stop: 41109, Start Num: 5
Candidate Starts for Pinnie_57:
(3, 40876), (Start: 5 @40921 has 4 MA's),

Gene: Pipefish_80 Start: 61721, Stop: 61533, Start Num: 8
Candidate Starts for Pipefish_80:
(Start: 8 @61721 has 50 MA's), (14, 61649),

Gene: Poise_22 Start: 5882, Stop: 6037, Start Num: 9
Candidate Starts for Poise_22:
(Start: 9 @5882 has 18 MA's), (Start: 12 @5921 has 1 MA's), (15, 5960),

Gene: Pringar_21 Start: 5880, Stop: 6035, Start Num: 9
Candidate Starts for Pringar_21:
(Start: 9 @5880 has 18 MA's), (Start: 12 @5919 has 1 MA's),

Gene: Raela_22 Start: 6437, Stop: 6592, Start Num: 9
Candidate Starts for Raela_22:
(Start: 9 @6437 has 18 MA's), (Start: 12 @6476 has 1 MA's), (15, 6515),

Gene: RagingRooster_77 Start: 60305, Stop: 60117, Start Num: 8
Candidate Starts for RagingRooster_77:
(Start: 8 @60305 has 50 MA's), (14, 60233),

Gene: RedRaider77_22 Start: 6021, Stop: 6176, Start Num: 9
Candidate Starts for RedRaider77_22:
(Start: 9 @6021 has 18 MA's), (Start: 12 @6060 has 1 MA's), (15, 6099),

Gene: Rita1961_79 Start: 60959, Stop: 60771, Start Num: 8
Candidate Starts for Rita1961_79:
(Start: 8 @60959 has 50 MA's), (14, 60887),

Gene: RomaT_78 Start: 61179, Stop: 60991, Start Num: 8
Candidate Starts for RomaT_78:
(Start: 8 @61179 has 50 MA's), (14, 61107),

Gene: Saguaro_73 Start: 61316, Stop: 61456, Start Num: 4
Candidate Starts for Saguaro_73:
(Start: 4 @61316 has 1 MA's), (10, 61373),

Gene: Shenandoah_77 Start: 60225, Stop: 60037, Start Num: 8
Candidate Starts for Shenandoah_77:
(Start: 8 @60225 has 50 MA's), (14, 60153),

Gene: Stargaze_57 Start: 40411, Stop: 40605, Start Num: 5

Candidate Starts for Stargaze_57:
(Start: 5 @40411 has 4 MA's),

Gene: SwainyDoc_79 Start: 60988, Stop: 60800, Start Num: 8
Candidate Starts for SwainyDoc_79:
(Start: 8 @60988 has 50 MA's), (14, 60916),

Gene: SynergyX_78 Start: 60616, Stop: 60428, Start Num: 8
Candidate Starts for SynergyX_78:
(Start: 8 @60616 has 50 MA's), (14, 60544),

Gene: Tesla_21 Start: 5873, Stop: 6028, Start Num: 9
Candidate Starts for Tesla_21:
(Start: 9 @5873 has 18 MA's), (Start: 12 @5912 has 1 MA's), (15, 5951),

Gene: TinyTerror_79 Start: 61039, Stop: 60851, Start Num: 8
Candidate Starts for TinyTerror_79:
(Start: 8 @61039 has 50 MA's), (14, 60967),

Gene: Tydolla_74 Start: 60595, Stop: 60407, Start Num: 8
Candidate Starts for Tydolla_74:
(Start: 8 @60595 has 50 MA's), (14, 60523),

Gene: VasuNzinga_20 Start: 5457, Stop: 5612, Start Num: 9
Candidate Starts for VasuNzinga_20:
(Start: 9 @5457 has 18 MA's), (Start: 12 @5496 has 1 MA's),

Gene: Wildcat_99 Start: 57955, Stop: 58119, Start Num: 6
Candidate Starts for Wildcat_99:
(Start: 6 @57955 has 5 MA's),

Gene: Yahalom_76 Start: 60422, Stop: 60234, Start Num: 8
Candidate Starts for Yahalom_76:
(Start: 8 @60422 has 50 MA's), (14, 60350),

Gene: YangYin_57 Start: 40848, Stop: 41042, Start Num: 5
Candidate Starts for YangYin_57:
(Start: 5 @40848 has 4 MA's),

Gene: Yinz_78 Start: 60487, Stop: 60299, Start Num: 8
Candidate Starts for Yinz_78:
(Start: 8 @60487 has 50 MA's), (14, 60415),