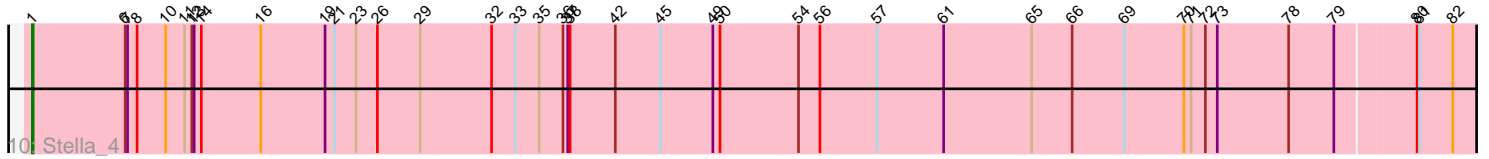
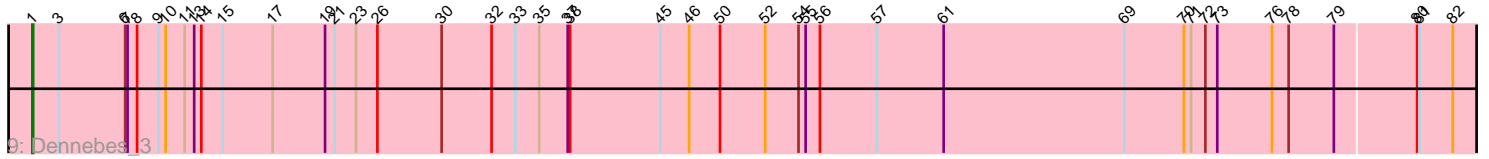
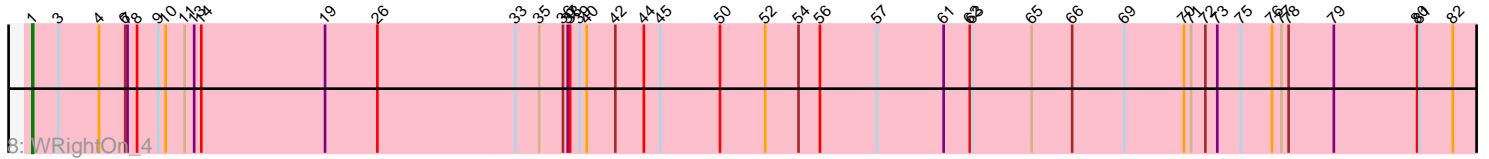
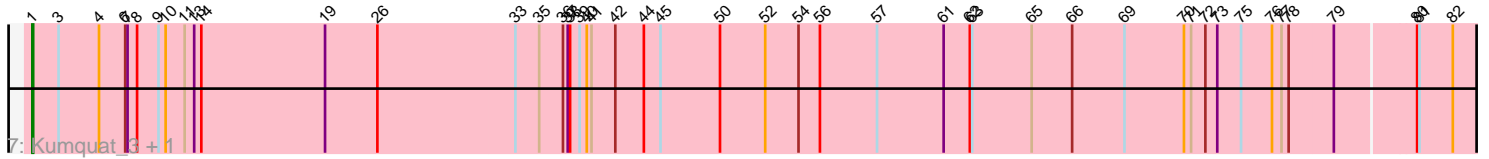
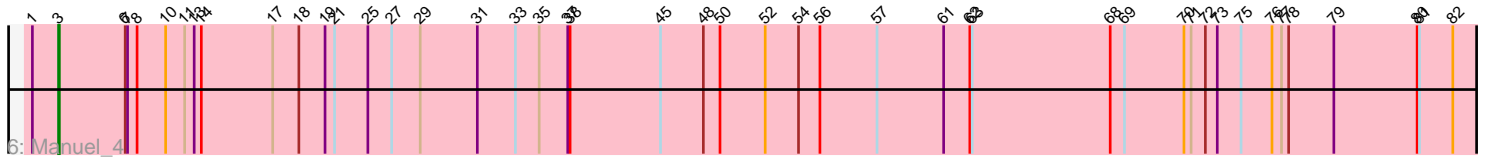
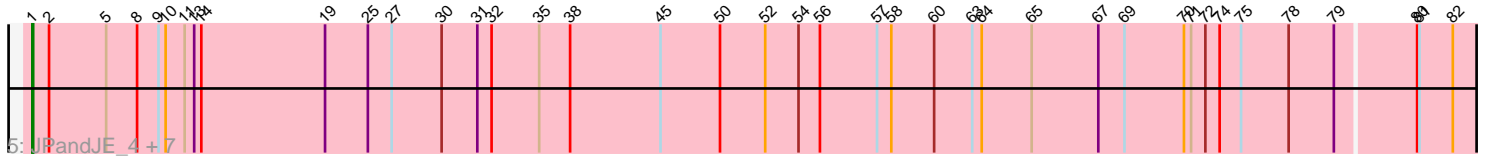
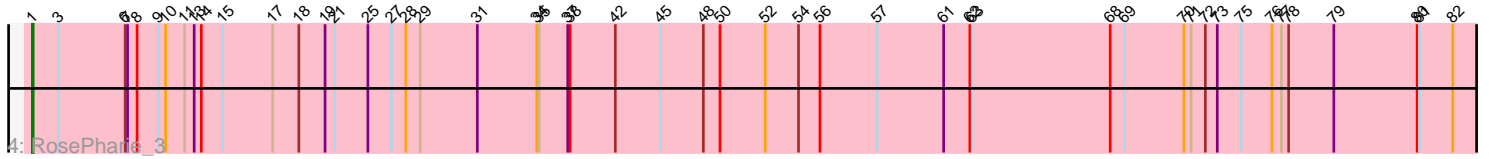
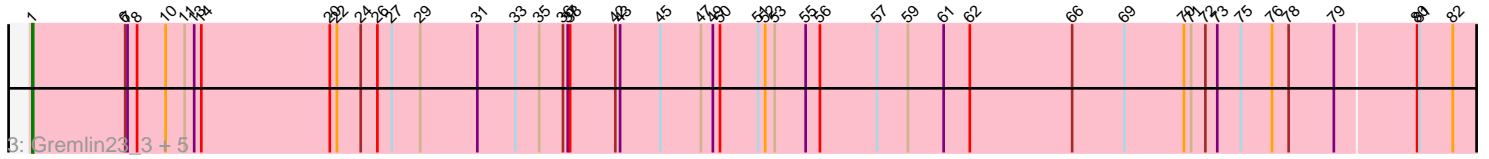
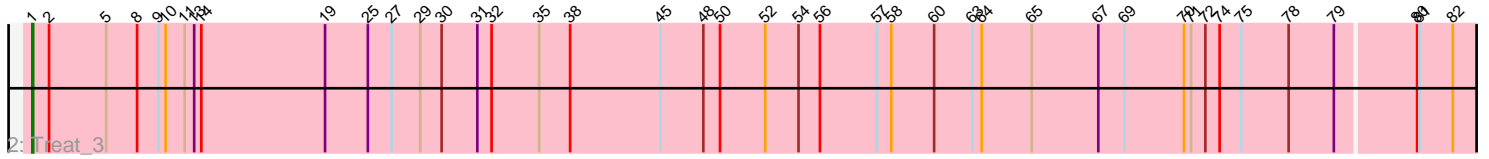
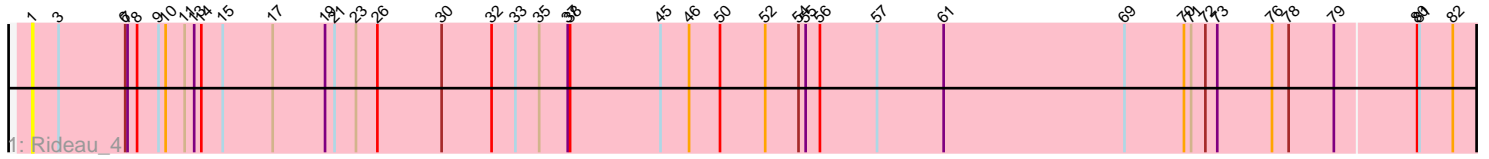


Pham 4045



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 4045 Report

This analysis was run 04/28/24 on database version 559.

Pham number 4045 has 23 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Rideau_4
- Track 2 : Treat_3
- Track 3 : Gremlin23_3, FlowerPower_3, Geostin_3, Fabian_3, RetrieverFever_3, Vorvolakos_3
- Track 4 : RosePharie_3
- Track 5 : JPandJE_4, Percastrophe_3, Romero_3, Immanuel3_3, HaugeAnator_3, ToriToki_3, ZooBear_3, Olicious_3
- Track 6 : Manuel_4
- Track 7 : Kumquat_3, Zeigle_3
- Track 8 : WRightOn_4
- Track 9 : Dennebes_3
- Track 10 : Stella_4

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

The start number called the most often in the published annotations is 1, it was called in 20 of the 21 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Dennebes_3, Fabian_3, FlowerPower_3, Geostin_3, Gremlin23_3, HaugeAnator_3, Immanuel3_3, JPandJE_4, Kumquat_3, Olicious_3, Percastrophe_3, RetrieverFever_3, Rideau_4, Romero_3, RosePharie_3, Stella_4, ToriToki_3, Treat_3, Vorvolakos_3, WRightOn_4, Zeigle_3, ZooBear_3,

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

- Manuel_4,

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

-

Summary by start number:

Start 1:

- Found in 23 of 23 (100.0%) of genes in pham

- Manual Annotations of this start: 20 of 21
- Called 95.7% of time when present
- Phage (with cluster) where this start called: Dennebes_3 (BF), Fabian_3 (BF), FlowerPower_3 (BF), Geostin_3 (BF), Gremlin23_3 (BF), HaugeAnator_3 (BF), Immanuel3_3 (BF), JPandJE_4 (BF), Kumquat_3 (BF), Olicious_3 (BF), Percastrophe_3 (BF), RetrieverFever_3 (BF), Rideau_4 (BF), Romero_3 (BF), RosePharie_3 (BF), Stella_4 (BF), ToriToki_3 (BF), Treat_3 (BF), Vorvolakos_3 (BF), WRightOn_4 (BF), Zeigle_3 (BF), ZooBear_3 (BF),

Start 3:

- Found in 7 of 23 (30.4%) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Manuel_4 (BF),

Summary by clusters:

There is one cluster represented in this pham: BF

Info for manual annotations of cluster BF:

- Start number 1 was manually annotated 20 times for cluster BF.
- Start number 3 was manually annotated 1 time for cluster BF.

Gene Information:

Gene: Dennebes_3 Start: 3538, Stop: 5358, Start Num: 1

Candidate Starts for Dennebes_3:

(Start: 1 @3538 has 20 MA's), (Start: 3 @3571 has 1 MA's), (6, 3655), (7, 3658), (8, 3670), (9, 3697), (10, 3706), (11, 3730), (13, 3742), (14, 3751), (15, 3778), (17, 3841), (19, 3907), (21, 3919), (23, 3946), (26, 3973), (30, 4054), (32, 4117), (33, 4147), (35, 4177), (37, 4213), (38, 4216), (45, 4330), (46, 4366), (50, 4405), (52, 4462), (54, 4504), (55, 4513), (56, 4531), (57, 4603), (61, 4687), (69, 4915), (70, 4990), (71, 4999), (72, 5017), (73, 5032), (76, 5101), (78, 5122), (79, 5179), (80, 5278), (81, 5281), (82, 5323),

Gene: Fabian_3 Start: 3387, Stop: 5204, Start Num: 1

Candidate Starts for Fabian_3:

(Start: 1 @3387 has 20 MA's), (6, 3504), (7, 3507), (8, 3519), (10, 3555), (11, 3579), (13, 3591), (14, 3600), (20, 3762), (22, 3771), (24, 3801), (26, 3822), (27, 3840), (29, 3876), (31, 3948), (33, 3996), (35, 4026), (36, 4056), (37, 4062), (38, 4065), (42, 4122), (43, 4128), (45, 4179), (47, 4230), (49, 4245), (50, 4254), (51, 4302), (52, 4311), (53, 4323), (55, 4362), (56, 4380), (57, 4452), (59, 4491), (61, 4536), (62, 4569), (66, 4698), (69, 4764), (70, 4839), (71, 4848), (72, 4866), (73, 4881), (75, 4911), (76, 4950), (78, 4971), (79, 5025), (80, 5124), (81, 5127), (82, 5169),

Gene: FlowerPower_3 Start: 3387, Stop: 5204, Start Num: 1

Candidate Starts for FlowerPower_3:

(Start: 1 @3387 has 20 MA's), (6, 3504), (7, 3507), (8, 3519), (10, 3555), (11, 3579), (13, 3591), (14, 3600), (20, 3762), (22, 3771), (24, 3801), (26, 3822), (27, 3840), (29, 3876), (31, 3948), (33, 3996), (35, 4026), (36, 4056), (37, 4062), (38, 4065), (42, 4122), (43, 4128), (45, 4179), (47, 4230), (49, 4245), (50, 4254), (51, 4302), (52, 4311), (53, 4323), (55, 4362), (56, 4380), (57, 4452), (59, 4491), (61, 4536), (62, 4569), (66, 4698), (69, 4764), (70, 4839), (71, 4848), (72, 4866), (73, 4881), (75, 4911), (76, 4950), (78, 4971), (79, 5025), (80, 5124), (81, 5127), (82, 5169),

Gene: Geostin_3 Start: 3387, Stop: 5204, Start Num: 1

Candidate Starts for Geostin_3:

(Start: 1 @3387 has 20 MA's), (6, 3504), (7, 3507), (8, 3519), (10, 3555), (11, 3579), (13, 3591), (14, 3600), (20, 3762), (22, 3771), (24, 3801), (26, 3822), (27, 3840), (29, 3876), (31, 3948), (33, 3996), (35, 4026), (36, 4056), (37, 4062), (38, 4065), (42, 4122), (43, 4128), (45, 4179), (47, 4230), (49, 4245), (50, 4254), (51, 4302), (52, 4311), (53, 4323), (55, 4362), (56, 4380), (57, 4452), (59, 4491), (61, 4536), (62, 4569), (66, 4698), (69, 4764), (70, 4839), (71, 4848), (72, 4866), (73, 4881), (75, 4911), (76, 4950), (78, 4971), (79, 5025), (80, 5124), (81, 5127), (82, 5169),

Gene: Gremlin23_3 Start: 3387, Stop: 5204, Start Num: 1

Candidate Starts for Gremlin23_3:

(Start: 1 @3387 has 20 MA's), (6, 3504), (7, 3507), (8, 3519), (10, 3555), (11, 3579), (13, 3591), (14, 3600), (20, 3762), (22, 3771), (24, 3801), (26, 3822), (27, 3840), (29, 3876), (31, 3948), (33, 3996), (35, 4026), (36, 4056), (37, 4062), (38, 4065), (42, 4122), (43, 4128), (45, 4179), (47, 4230), (49, 4245), (50, 4254), (51, 4302), (52, 4311), (53, 4323), (55, 4362), (56, 4380), (57, 4452), (59, 4491), (61, 4536), (62, 4569), (66, 4698), (69, 4764), (70, 4839), (71, 4848), (72, 4866), (73, 4881), (75, 4911), (76, 4950), (78, 4971), (79, 5025), (80, 5124), (81, 5127), (82, 5169),

Gene: HaugeAnator_3 Start: 3431, Stop: 5248, Start Num: 1

Candidate Starts for HaugeAnator_3:

(Start: 1 @3431 has 20 MA's), (2, 3452), (5, 3524), (8, 3563), (9, 3590), (10, 3599), (11, 3623), (13, 3635), (14, 3644), (19, 3800), (25, 3854), (27, 3884), (30, 3947), (31, 3992), (32, 4010), (35, 4070), (38, 4109), (45, 4223), (50, 4298), (52, 4355), (54, 4397), (56, 4424), (57, 4496), (58, 4514), (60, 4568), (63, 4616), (64, 4628), (65, 4691), (67, 4775), (69, 4808), (70, 4883), (71, 4892), (72, 4910), (74, 4928), (75, 4955), (78, 5015), (79, 5072), (80, 5168), (81, 5171), (82, 5213),

Gene: Immanuel3_3 Start: 3435, Stop: 5252, Start Num: 1

Candidate Starts for Immanuel3_3:

(Start: 1 @3435 has 20 MA's), (2, 3456), (5, 3528), (8, 3567), (9, 3594), (10, 3603), (11, 3627), (13, 3639), (14, 3648), (19, 3804), (25, 3858), (27, 3888), (30, 3951), (31, 3996), (32, 4014), (35, 4074), (38, 4113), (45, 4227), (50, 4302), (52, 4359), (54, 4401), (56, 4428), (57, 4500), (58, 4518), (60, 4572), (63, 4620), (64, 4632), (65, 4695), (67, 4779), (69, 4812), (70, 4887), (71, 4896), (72, 4914), (74, 4932), (75, 4959), (78, 5019), (79, 5076), (80, 5172), (81, 5175), (82, 5217),

Gene: JPandJE_4 Start: 3791, Stop: 5608, Start Num: 1

Candidate Starts for JPandJE_4:

(Start: 1 @3791 has 20 MA's), (2, 3812), (5, 3884), (8, 3923), (9, 3950), (10, 3959), (11, 3983), (13, 3995), (14, 4004), (19, 4160), (25, 4214), (27, 4244), (30, 4307), (31, 4352), (32, 4370), (35, 4430), (38, 4469), (45, 4583), (50, 4658), (52, 4715), (54, 4757), (56, 4784), (57, 4856), (58, 4874), (60, 4928), (63, 4976), (64, 4988), (65, 5051), (67, 5135), (69, 5168), (70, 5243), (71, 5252), (72, 5270), (74, 5288), (75, 5315), (78, 5375), (79, 5432), (80, 5528), (81, 5531), (82, 5573),

Gene: Kumquat_3 Start: 3421, Stop: 5232, Start Num: 1

Candidate Starts for Kumquat_3:

(Start: 1 @3421 has 20 MA's), (Start: 3 @3454 has 1 MA's), (4, 3505), (6, 3538), (7, 3541), (8, 3553), (9, 3580), (10, 3589), (11, 3613), (13, 3625), (14, 3634), (19, 3790), (26, 3856), (33, 4027), (35, 4057), (36, 4087), (37, 4093), (38, 4096), (39, 4108), (40, 4117), (41, 4123), (42, 4153), (44, 4189), (45, 4210), (50, 4285), (52, 4342), (54, 4384), (56, 4411), (57, 4483), (61, 4567), (62, 4600), (63, 4603), (65, 4678), (66, 4729), (69, 4795), (70, 4870), (71, 4879), (72, 4897), (73, 4912), (75, 4942), (76, 4981), (77, 4993), (78, 5002), (79, 5056), (80, 5152), (81, 5155), (82, 5197),

Gene: Manuel_4 Start: 3854, Stop: 5647, Start Num: 3

Candidate Starts for Manuel_4:

(Start: 1 @3821 has 20 MA's), (Start: 3 @3854 has 1 MA's), (6, 3938), (7, 3941), (8, 3953), (10, 3989), (11, 4013), (13, 4025), (14, 4034), (17, 4124), (18, 4157), (19, 4190), (21, 4202), (25, 4244), (27, 4274), (29, 4310), (31, 4382), (33, 4430), (35, 4460), (37, 4496), (38, 4499), (45, 4613), (48, 4667), (50, 4688), (52, 4745), (54, 4787), (56, 4814), (57, 4886), (61, 4970), (62, 5003), (63, 5006), (68, 5180), (69, 5198), (70, 5273), (71, 5282), (72, 5300), (73, 5315), (75, 5345), (76, 5384), (77, 5396), (78, 5405), (79, 5462), (80, 5567), (81, 5570), (82, 5612),

Gene: Olicious_3 Start: 3431, Stop: 5248, Start Num: 1

Candidate Starts for Olicious_3:

(Start: 1 @3431 has 20 MA's), (2, 3452), (5, 3524), (8, 3563), (9, 3590), (10, 3599), (11, 3623), (13, 3635), (14, 3644), (19, 3800), (25, 3854), (27, 3884), (30, 3947), (31, 3992), (32, 4010), (35, 4070), (38, 4109), (45, 4223), (50, 4298), (52, 4355), (54, 4397), (56, 4424), (57, 4496), (58, 4514), (60, 4568), (63, 4616), (64, 4628), (65, 4691), (67, 4775), (69, 4808), (70, 4883), (71, 4892), (72, 4910), (74, 4928), (75, 4955), (78, 5015), (79, 5072), (80, 5168), (81, 5171), (82, 5213),

Gene: Percastrophe_3 Start: 3424, Stop: 5241, Start Num: 1

Candidate Starts for Percastrophe_3:

(Start: 1 @3424 has 20 MA's), (2, 3445), (5, 3517), (8, 3556), (9, 3583), (10, 3592), (11, 3616), (13, 3628), (14, 3637), (19, 3793), (25, 3847), (27, 3877), (30, 3940), (31, 3985), (32, 4003), (35, 4063), (38, 4102), (45, 4216), (50, 4291), (52, 4348), (54, 4390), (56, 4417), (57, 4489), (58, 4507), (60, 4561), (63, 4609), (64, 4621), (65, 4684), (67, 4768), (69, 4801), (70, 4876), (71, 4885), (72, 4903), (74, 4921), (75, 4948), (78, 5008), (79, 5065), (80, 5161), (81, 5164), (82, 5206),

Gene: RetrieverFever_3 Start: 3387, Stop: 5204, Start Num: 1

Candidate Starts for RetrieverFever_3:

(Start: 1 @3387 has 20 MA's), (6, 3504), (7, 3507), (8, 3519), (10, 3555), (11, 3579), (13, 3591), (14, 3600), (20, 3762), (22, 3771), (24, 3801), (26, 3822), (27, 3840), (29, 3876), (31, 3948), (33, 3996), (35, 4026), (36, 4056), (37, 4062), (38, 4065), (42, 4122), (43, 4128), (45, 4179), (47, 4230), (49, 4245), (50, 4254), (51, 4302), (52, 4311), (53, 4323), (55, 4362), (56, 4380), (57, 4452), (59, 4491), (61, 4536), (62, 4569), (66, 4698), (69, 4764), (70, 4839), (71, 4848), (72, 4866), (73, 4881), (75, 4911), (76, 4950), (78, 4971), (79, 5025), (80, 5124), (81, 5127), (82, 5169),

Gene: Rideau_4 Start: 3538, Stop: 5358, Start Num: 1

Candidate Starts for Rideau_4:

(Start: 1 @3538 has 20 MA's), (Start: 3 @3571 has 1 MA's), (6, 3655), (7, 3658), (8, 3670), (9, 3697), (10, 3706), (11, 3730), (13, 3742), (14, 3751), (15, 3778), (17, 3841), (19, 3907), (21, 3919), (23, 3946), (26, 3973), (30, 4054), (32, 4117), (33, 4147), (35, 4177), (37, 4213), (38, 4216), (45, 4330), (46, 4366), (50, 4405), (52, 4462), (54, 4504), (55, 4513), (56, 4531), (57, 4603), (61, 4687), (69, 4915), (70, 4990), (71, 4999), (72, 5017), (73, 5032), (76, 5101), (78, 5122), (79, 5179), (80, 5278), (81, 5281), (82, 5323),

Gene: Romero_3 Start: 3424, Stop: 5241, Start Num: 1

Candidate Starts for Romero_3:

(Start: 1 @3424 has 20 MA's), (2, 3445), (5, 3517), (8, 3556), (9, 3583), (10, 3592), (11, 3616), (13, 3628), (14, 3637), (19, 3793), (25, 3847), (27, 3877), (30, 3940), (31, 3985), (32, 4003), (35, 4063), (38, 4102), (45, 4216), (50, 4291), (52, 4348), (54, 4390), (56, 4417), (57, 4489), (58, 4507), (60, 4561), (63, 4609), (64, 4621), (65, 4684), (67, 4768), (69, 4801), (70, 4876), (71, 4885), (72, 4903), (74, 4921), (75, 4948), (78, 5008), (79, 5065), (80, 5161), (81, 5164), (82, 5206),

Gene: RosePharie_3 Start: 3536, Stop: 5362, Start Num: 1

Candidate Starts for RosePharie_3:

(Start: 1 @3536 has 20 MA's), (Start: 3 @3569 has 1 MA's), (6, 3653), (7, 3656), (8, 3668), (9, 3695), (10, 3704), (11, 3728), (13, 3740), (14, 3749), (15, 3776), (17, 3839), (18, 3872), (19, 3905), (21, 3917), (25, 3959), (27, 3989), (28, 4007), (29, 4025), (31, 4097), (34, 4172), (35, 4175), (37, 4211), (38, 4214), (42, 4271), (45, 4328), (48, 4382), (50, 4403), (52, 4460), (54, 4502), (56, 4529), (57, 4601), (61, 4685), (62, 4718), (63, 4721), (68, 4895), (69, 4913), (70, 4988), (71, 4997), (72, 5015), (73, 5030), (75, 5060), (76, 5099), (77, 5111), (78, 5120), (79, 5177), (80, 5282), (81, 5285), (82, 5327),

Gene: Stella_4 Start: 3399, Stop: 5216, Start Num: 1

Candidate Starts for Stella_4:

(Start: 1 @3399 has 20 MA's), (6, 3516), (7, 3519), (8, 3531), (10, 3567), (11, 3591), (12, 3600), (13, 3603), (14, 3612), (16, 3687), (19, 3768), (21, 3780), (23, 3807), (26, 3834), (29, 3888), (32, 3978), (33, 4008), (35, 4038), (36, 4068), (37, 4074), (38, 4077), (42, 4134), (45, 4191), (49, 4257), (50, 4266), (54, 4365), (56, 4392), (57, 4464), (61, 4548), (65, 4659), (66, 4710), (69, 4776), (70, 4851), (71, 4860), (72, 4878), (73, 4893), (78, 4983), (79, 5040), (80, 5136), (81, 5139), (82, 5181),

Gene: ToriToki_3 Start: 3424, Stop: 5241, Start Num: 1

Candidate Starts for ToriToki_3:

(Start: 1 @3424 has 20 MA's), (2, 3445), (5, 3517), (8, 3556), (9, 3583), (10, 3592), (11, 3616), (13, 3628), (14, 3637), (19, 3793), (25, 3847), (27, 3877), (30, 3940), (31, 3985), (32, 4003), (35, 4063), (38, 4102), (45, 4216), (50, 4291), (52, 4348), (54, 4390), (56, 4417), (57, 4489), (58, 4507), (60, 4561), (63, 4609), (64, 4621), (65, 4684), (67, 4768), (69, 4801), (70, 4876), (71, 4885), (72, 4903), (74, 4921), (75, 4948), (78, 5008), (79, 5065), (80, 5161), (81, 5164), (82, 5206),

Gene: Treat_3 Start: 3424, Stop: 5241, Start Num: 1

Candidate Starts for Treat_3:

(Start: 1 @3424 has 20 MA's), (2, 3445), (5, 3517), (8, 3556), (9, 3583), (10, 3592), (11, 3616), (13, 3628), (14, 3637), (19, 3793), (25, 3847), (27, 3877), (29, 3913), (30, 3940), (31, 3985), (32, 4003), (35, 4063), (38, 4102), (45, 4216), (48, 4270), (50, 4291), (52, 4348), (54, 4390), (56, 4417), (57, 4489), (58, 4507), (60, 4561), (63, 4609), (64, 4621), (65, 4684), (67, 4768), (69, 4801), (70, 4876), (71, 4885), (72, 4903), (74, 4921), (75, 4948), (78, 5008), (79, 5065), (80, 5161), (81, 5164), (82, 5206),

Gene: Vorvolakos_3 Start: 3386, Stop: 5203, Start Num: 1

Candidate Starts for Vorvolakos_3:

(Start: 1 @3386 has 20 MA's), (6, 3503), (7, 3506), (8, 3518), (10, 3554), (11, 3578), (13, 3590), (14, 3599), (20, 3761), (22, 3770), (24, 3800), (26, 3821), (27, 3839), (29, 3875), (31, 3947), (33, 3995), (35, 4025), (36, 4055), (37, 4061), (38, 4064), (42, 4121), (43, 4127), (45, 4178), (47, 4229), (49, 4244), (50, 4253), (51, 4301), (52, 4310), (53, 4322), (55, 4361), (56, 4379), (57, 4451), (59, 4490), (61, 4535), (62, 4568), (66, 4697), (69, 4763), (70, 4838), (71, 4847), (72, 4865), (73, 4880), (75, 4910), (76, 4949), (78, 4970), (79, 5024), (80, 5123), (81, 5126), (82, 5168),

Gene: WRightOn_4 Start: 3765, Stop: 5588, Start Num: 1

Candidate Starts for WRightOn_4:

(Start: 1 @3765 has 20 MA's), (Start: 3 @3798 has 1 MA's), (4, 3849), (6, 3882), (7, 3885), (8, 3897), (9, 3924), (10, 3933), (11, 3957), (13, 3969), (14, 3978), (19, 4134), (26, 4200), (33, 4371), (35, 4401), (36, 4431), (37, 4437), (38, 4440), (39, 4452), (40, 4461), (42, 4497), (44, 4533), (45, 4554), (50, 4629), (52, 4686), (54, 4728), (56, 4755), (57, 4827), (61, 4911), (62, 4944), (63, 4947), (65, 5022), (66, 5073), (69, 5139), (70, 5214), (71, 5223), (72, 5241), (73, 5256), (75, 5286), (76, 5325), (77, 5337), (78, 5346), (79, 5403), (80, 5508), (81, 5511), (82, 5553),

Gene: Zeigle_3 Start: 3421, Stop: 5232, Start Num: 1

Candidate Starts for Zeigle_3:

(Start: 1 @3421 has 20 MA's), (Start: 3 @3454 has 1 MA's), (4, 3505), (6, 3538), (7, 3541), (8, 3553), (9, 3580), (10, 3589), (11, 3613), (13, 3625), (14, 3634), (19, 3790), (26, 3856), (33, 4027), (35, 4057), (36, 4087), (37, 4093), (38, 4096), (39, 4108), (40, 4117), (41, 4123), (42, 4153), (44, 4189), (45, 4210), (50, 4285), (52, 4342), (54, 4384), (56, 4411), (57, 4483), (61, 4567), (62, 4600), (63, 4603), (65, 4678), (66, 4729), (69, 4795), (70, 4870), (71, 4879), (72, 4897), (73, 4912), (75, 4942), (76, 4981), (77, 4993), (78, 5002), (79, 5056), (80, 5152), (81, 5155), (82, 5197),

Gene: ZooBear_3 Start: 3431, Stop: 5248, Start Num: 1

Candidate Starts for ZooBear_3:

(Start: 1 @3431 has 20 MA's), (2, 3452), (5, 3524), (8, 3563), (9, 3590), (10, 3599), (11, 3623), (13, 3635), (14, 3644), (19, 3800), (25, 3854), (27, 3884), (30, 3947), (31, 3992), (32, 4010), (35, 4070), (38, 4109), (45, 4223), (50, 4298), (52, 4355), (54, 4397), (56, 4424), (57, 4496), (58, 4514), (60, 4568), (63, 4616), (64, 4628), (65, 4691), (67, 4775), (69, 4808), (70, 4883), (71, 4892), (72, 4910), (74, 4928), (75, 4955), (78, 5015), (79, 5072), (80, 5168), (81, 5171), (82, 5213),