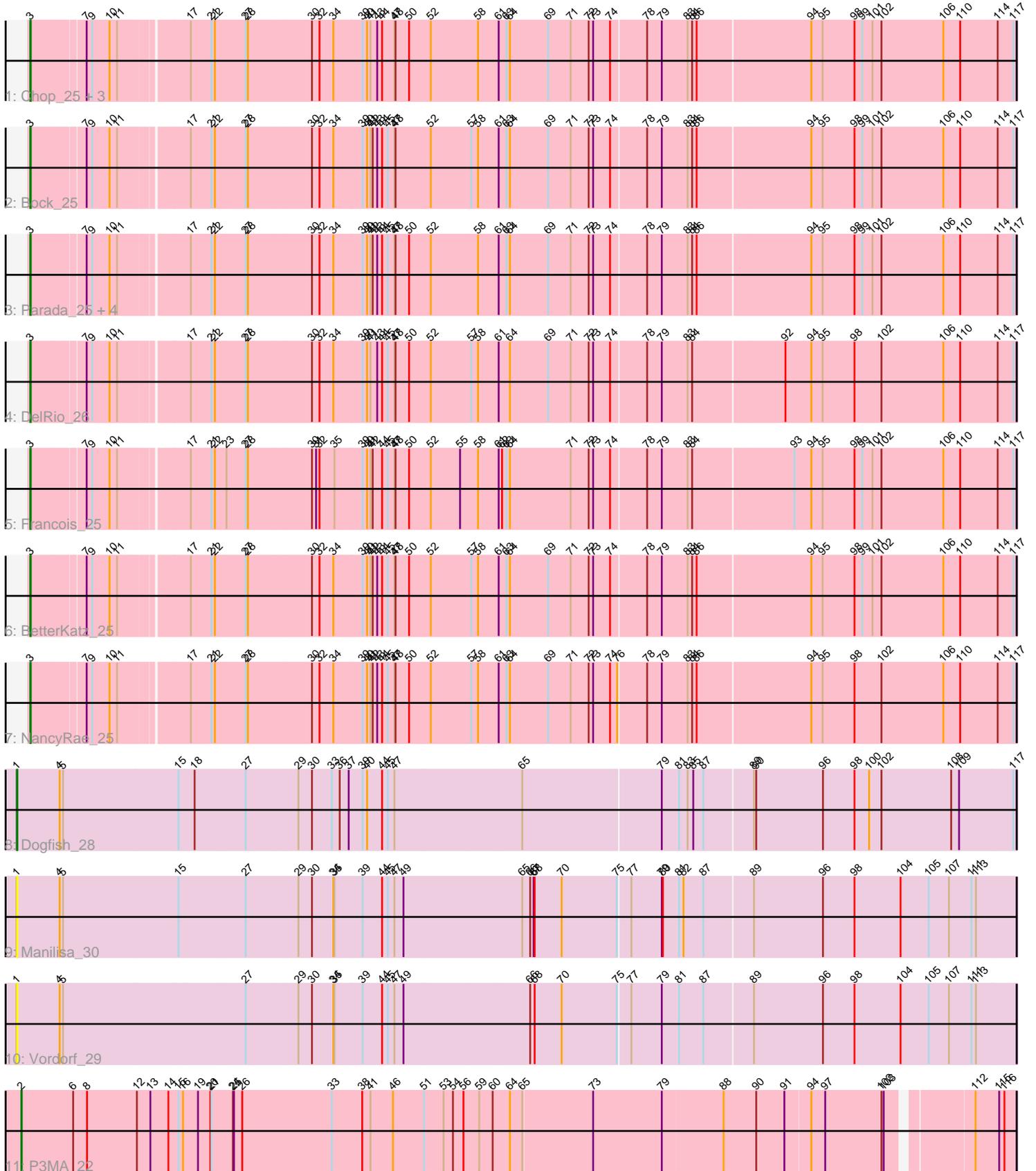


Pham 284231



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 284231 Report

This analysis was run 02/23/26 on database version 636.

Pham number 284231 has 18 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Chop_25, Ayotoya_25, GrandSlam_25, Hamood_25
- Track 2 : Bock_25
- Track 3 : Parada_25, WheatThin_25, Nadeem_25, Mulch_25, Brylie_25
- Track 4 : DelRio_26
- Track 5 : Francois_25
- Track 6 : BetterKatz_25
- Track 7 : NancyRae_25
- Track 8 : Dogfish_28
- Track 9 : Manilisa_30
- Track 10 : Vordorf_29
- Track 11 : P3MA_22

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

The start number called the most often in the published annotations is 3, it was called in 14 of the 16 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ayotoya_25, BetterKatz_25, Bock_25, Brylie_25, Chop_25, DelRio_26, Francois_25, GrandSlam_25, Hamood_25, Mulch_25, Nadeem_25, NancyRae_25, Parada_25, WheatThin_25,

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

-

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

- Dogfish_28, Manilisa_30, P3MA_22, Vordorf_29,

Summary by start number:

Start 1:

- Found in 3 of 18 (16.7%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Dogfish_28 (DT), Manilisa_30 (DT), Vordorf_29 (DT),

Start 2:

- Found in 1 of 18 (5.6%) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: P3MA_22 (singleton),

Start 3:

- Found in 14 of 18 (77.8%) of genes in pham
- Manual Annotations of this start: 14 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ayotoya_25 (DI), BetterKatz_25 (DI), Bock_25 (DI), Brylie_25 (DI), Chop_25 (DI), DelRio_26 (DI), Francois_25 (DI), GrandSlam_25 (DI), Hamood_25 (DI), Mulch_25 (DI), Nadeem_25 (DI), NancyRae_25 (DI), Parada_25 (DI), WheatThin_25 (DI),

Summary by clusters:

There are 3 clusters represented in this pham: DT, singleton, DI,

Info for manual annotations of cluster DI:

- Start number 3 was manually annotated 14 times for cluster DI.

Info for manual annotations of cluster DT:

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

Gene Information:

Gene: Ayotoya_25 Start: 21393, Stop: 23903, Start Num: 3

Candidate Starts for Ayotoya_25:

(Start: 3 @21393 has 14 MA's), (7, 21525), (9, 21540), (10, 21585), (11, 21603), (17, 21768), (21, 21822), (22, 21831), (27, 21909), (28, 21915), (30, 22080), (32, 22095), (34, 22131), (39, 22206), (40, 22218), (41, 22227), (43, 22245), (44, 22257), (47, 22290), (48, 22293), (50, 22329), (52, 22383), (58, 22506), (61, 22560), (63, 22581), (64, 22590), (69, 22692), (71, 22752), (72, 22800), (73, 22812), (74, 22857), (78, 22944), (79, 22983), (83, 23052), (84, 23064), (86, 23076), (94, 23364), (95, 23394), (98, 23475), (99, 23496), (101, 23523), (102, 23547), (106, 23712), (110, 23757), (114, 23856), (117, 23895),

Gene: BetterKatz_25 Start: 20866, Stop: 23376, Start Num: 3

Candidate Starts for BetterKatz_25:

(Start: 3 @20866 has 14 MA's), (7, 20998), (9, 21013), (10, 21058), (11, 21076), (17, 21241), (21, 21295), (22, 21304), (27, 21382), (28, 21388), (30, 21553), (32, 21568), (34, 21604), (39, 21679), (40, 21691), (41, 21700), (42, 21706), (43, 21718), (44, 21730), (45, 21745), (47, 21763), (48, 21766), (50, 21802), (52, 21856), (57, 21961), (58, 21979), (61, 22033), (63, 22054), (64, 22063), (69, 22165), (71, 22225), (72, 22273), (73, 22285), (74, 22330), (78, 22417), (79, 22456), (83, 22525), (84, 22537), (86, 22549), (94, 22837), (95, 22867), (98, 22948), (99, 22969), (101, 22996), (102, 23020), (106, 23185), (110, 23230), (114, 23329), (117, 23368),

Gene: Bock_25 Start: 20616, Stop: 23126, Start Num: 3

Candidate Starts for Bock_25:

(Start: 3 @20616 has 14 MA's), (7, 20748), (9, 20763), (10, 20808), (11, 20826), (17, 20991), (21, 21045), (22, 21054), (27, 21132), (28, 21138), (30, 21303), (32, 21318), (34, 21354), (39, 21429), (40, 21441), (41, 21450), (42, 21456), (43, 21468), (44, 21480), (45, 21495), (47, 21513), (48, 21516), (52, 21606), (57, 21711), (58, 21729), (61, 21783), (63, 21804), (64, 21813), (69, 21915), (71, 21975), (72, 22023), (73, 22035), (74, 22080), (78, 22167), (79, 22206), (83, 22275), (84, 22287), (86, 22299), (94, 22587), (95, 22617), (98, 22698), (99, 22719), (101, 22746), (102, 22770), (106, 22935), (110, 22980), (114, 23079), (117, 23118),

Gene: Brylie_25 Start: 20607, Stop: 23117, Start Num: 3

Candidate Starts for Brylie_25:

(Start: 3 @20607 has 14 MA's), (7, 20739), (9, 20754), (10, 20799), (11, 20817), (17, 20982), (21, 21036), (22, 21045), (27, 21123), (28, 21129), (30, 21294), (32, 21309), (34, 21345), (39, 21420), (40, 21432), (41, 21441), (42, 21447), (43, 21459), (44, 21471), (45, 21486), (47, 21504), (48, 21507), (50, 21543), (52, 21597), (58, 21720), (61, 21774), (63, 21795), (64, 21804), (69, 21906), (71, 21966), (72, 22014), (73, 22026), (74, 22071), (78, 22158), (79, 22197), (83, 22266), (84, 22278), (86, 22290), (94, 22578), (95, 22608), (98, 22689), (99, 22710), (101, 22737), (102, 22761), (106, 22926), (110, 22971), (114, 23070), (117, 23109),

Gene: Chop_25 Start: 21141, Stop: 23651, Start Num: 3

Candidate Starts for Chop_25:

(Start: 3 @21141 has 14 MA's), (7, 21273), (9, 21288), (10, 21333), (11, 21351), (17, 21516), (21, 21570), (22, 21579), (27, 21657), (28, 21663), (30, 21828), (32, 21843), (34, 21879), (39, 21954), (40, 21966), (41, 21975), (43, 21993), (44, 22005), (47, 22038), (48, 22041), (50, 22077), (52, 22131), (58, 22254), (61, 22308), (63, 22329), (64, 22338), (69, 22440), (71, 22500), (72, 22548), (73, 22560), (74, 22605), (78, 22692), (79, 22731), (83, 22800), (84, 22812), (86, 22824), (94, 23112), (95, 23142), (98, 23223), (99, 23244), (101, 23271), (102, 23295), (106, 23460), (110, 23505), (114, 23604), (117, 23643),

Gene: DelRio_26 Start: 21615, Stop: 24125, Start Num: 3

Candidate Starts for DelRio_26:

(Start: 3 @21615 has 14 MA's), (7, 21747), (9, 21762), (10, 21807), (11, 21825), (17, 21990), (21, 22044), (22, 22053), (27, 22131), (28, 22137), (30, 22302), (32, 22317), (34, 22353), (39, 22428), (40, 22440), (41, 22449), (43, 22467), (44, 22479), (45, 22494), (47, 22512), (48, 22515), (50, 22551), (52, 22605), (57, 22710), (58, 22728), (61, 22782), (64, 22812), (69, 22914), (71, 22974), (72, 23022), (73, 23034), (74, 23079), (78, 23166), (79, 23205), (83, 23274), (84, 23286), (92, 23520), (94, 23586), (95, 23616), (98, 23697), (102, 23769), (106, 23934), (110, 23979), (114, 24078), (117, 24117),

Gene: Dogfish_28 Start: 23683, Stop: 26286, Start Num: 1

Candidate Starts for Dogfish_28:

(Start: 1 @23683 has 1 MA's), (4, 23797), (5, 23806), (15, 24109), (18, 24151), (27, 24283), (29, 24418), (30, 24454), (33, 24502), (36, 24520), (37, 24544), (39, 24580), (40, 24592), (44, 24631), (45, 24646), (47, 24664), (65, 24997), (79, 25360), (81, 25402), (83, 25423), (85, 25438), (87, 25465), (89, 25591), (90, 25597), (96, 25774), (98, 25855), (100, 25894), (102, 25927), (108, 26113), (109, 26134), (117, 26278),

Gene: Francois_25 Start: 20630, Stop: 23140, Start Num: 3

Candidate Starts for Francois_25:

(Start: 3 @20630 has 14 MA's), (7, 20762), (9, 20777), (10, 20822), (11, 20840), (17, 21005), (21, 21059), (22, 21068), (23, 21095), (27, 21146), (28, 21152), (30, 21317), (31, 21323), (32, 21332), (35, 21371), (39, 21443), (40, 21455), (41, 21464), (42, 21470), (44, 21494), (45, 21509), (47, 21527), (48, 21530), (50, 21566), (52, 21620), (55, 21698), (58, 21743), (61, 21797), (62, 21806), (63, 21818), (64, 21827), (71, 21989), (72, 22037), (73, 22049), (74, 22094), (78, 22181), (79, 22220), (83, 22289), (84,

22301), (93, 22559), (94, 22601), (95, 22631), (98, 22712), (99, 22733), (101, 22760), (102, 22784), (106, 22949), (110, 22994), (114, 23093), (117, 23132),

Gene: GrandSlam_25 Start: 21141, Stop: 23651, Start Num: 3

Candidate Starts for GrandSlam_25:

(Start: 3 @21141 has 14 MA's), (7, 21273), (9, 21288), (10, 21333), (11, 21351), (17, 21516), (21, 21570), (22, 21579), (27, 21657), (28, 21663), (30, 21828), (32, 21843), (34, 21879), (39, 21954), (40, 21966), (41, 21975), (43, 21993), (44, 22005), (47, 22038), (48, 22041), (50, 22077), (52, 22131), (58, 22254), (61, 22308), (63, 22329), (64, 22338), (69, 22440), (71, 22500), (72, 22548), (73, 22560), (74, 22605), (78, 22692), (79, 22731), (83, 22800), (84, 22812), (86, 22824), (94, 23112), (95, 23142), (98, 23223), (99, 23244), (101, 23271), (102, 23295), (106, 23460), (110, 23505), (114, 23604), (117, 23643),

Gene: Hamood_25 Start: 21141, Stop: 23651, Start Num: 3

Candidate Starts for Hamood_25:

(Start: 3 @21141 has 14 MA's), (7, 21273), (9, 21288), (10, 21333), (11, 21351), (17, 21516), (21, 21570), (22, 21579), (27, 21657), (28, 21663), (30, 21828), (32, 21843), (34, 21879), (39, 21954), (40, 21966), (41, 21975), (43, 21993), (44, 22005), (47, 22038), (48, 22041), (50, 22077), (52, 22131), (58, 22254), (61, 22308), (63, 22329), (64, 22338), (69, 22440), (71, 22500), (72, 22548), (73, 22560), (74, 22605), (78, 22692), (79, 22731), (83, 22800), (84, 22812), (86, 22824), (94, 23112), (95, 23142), (98, 23223), (99, 23244), (101, 23271), (102, 23295), (106, 23460), (110, 23505), (114, 23604), (117, 23643),

Gene: Manilisa_30 Start: 24464, Stop: 27067, Start Num: 1

Candidate Starts for Manilisa_30:

(Start: 1 @24464 has 1 MA's), (4, 24578), (5, 24587), (15, 24890), (27, 25064), (29, 25199), (30, 25235), (34, 25286), (35, 25289), (39, 25361), (44, 25412), (45, 25427), (47, 25445), (49, 25469), (65, 25778), (66, 25799), (67, 25808), (68, 25811), (70, 25883), (75, 26030), (77, 26060), (79, 26141), (80, 26144), (81, 26183), (82, 26195), (87, 26246), (89, 26372), (96, 26555), (98, 26636), (104, 26759), (105, 26834), (107, 26888), (111, 26948), (113, 26960),

Gene: Mulch_25 Start: 20607, Stop: 23117, Start Num: 3

Candidate Starts for Mulch_25:

(Start: 3 @20607 has 14 MA's), (7, 20739), (9, 20754), (10, 20799), (11, 20817), (17, 20982), (21, 21036), (22, 21045), (27, 21123), (28, 21129), (30, 21294), (32, 21309), (34, 21345), (39, 21420), (40, 21432), (41, 21441), (42, 21447), (43, 21459), (44, 21471), (45, 21486), (47, 21504), (48, 21507), (50, 21543), (52, 21597), (58, 21720), (61, 21774), (63, 21795), (64, 21804), (69, 21906), (71, 21966), (72, 22014), (73, 22026), (74, 22071), (78, 22158), (79, 22197), (83, 22266), (84, 22278), (86, 22290), (94, 22578), (95, 22608), (98, 22689), (99, 22710), (101, 22737), (102, 22761), (106, 22926), (110, 22971), (114, 23070), (117, 23109),

Gene: Nadeem_25 Start: 20607, Stop: 23117, Start Num: 3

Candidate Starts for Nadeem_25:

(Start: 3 @20607 has 14 MA's), (7, 20739), (9, 20754), (10, 20799), (11, 20817), (17, 20982), (21, 21036), (22, 21045), (27, 21123), (28, 21129), (30, 21294), (32, 21309), (34, 21345), (39, 21420), (40, 21432), (41, 21441), (42, 21447), (43, 21459), (44, 21471), (45, 21486), (47, 21504), (48, 21507), (50, 21543), (52, 21597), (58, 21720), (61, 21774), (63, 21795), (64, 21804), (69, 21906), (71, 21966), (72, 22014), (73, 22026), (74, 22071), (78, 22158), (79, 22197), (83, 22266), (84, 22278), (86, 22290), (94, 22578), (95, 22608), (98, 22689), (99, 22710), (101, 22737), (102, 22761), (106, 22926), (110, 22971), (114, 23070), (117, 23109),

Gene: NancyRae_25 Start: 20613, Stop: 23123, Start Num: 3

Candidate Starts for NancyRae_25:

(Start: 3 @20613 has 14 MA's), (7, 20745), (9, 20760), (10, 20805), (11, 20823), (17, 20988), (21, 21042), (22, 21051), (27, 21129), (28, 21135), (30, 21300), (32, 21315), (34, 21351), (39, 21426), (40, 21438), (41, 21447), (42, 21453), (43, 21465), (44, 21477), (45, 21492), (47, 21510), (48, 21513), (50, 21549), (52, 21603), (57, 21708), (58, 21726), (61, 21780), (63, 21801), (64, 21810), (69, 21912), (71, 21972), (72, 22020), (73, 22032), (74, 22077), (76, 22095), (78, 22164), (79, 22203), (83, 22272), (84, 22284), (86, 22296), (94, 22584), (95, 22614), (98, 22695), (102, 22767), (106, 22932), (110, 22977), (114, 23076), (117, 23115),

Gene: P3MA_22 Start: 17958, Stop: 20483, Start Num: 2

Candidate Starts for P3MA_22:

(Start: 2 @17958 has 1 MA's), (6, 18096), (8, 18129), (12, 18255), (13, 18291), (14, 18339), (15, 18366), (16, 18378), (19, 18417), (20, 18450), (21, 18453), (24, 18510), (25, 18513), (26, 18534), (33, 18771), (38, 18852), (41, 18873), (46, 18930), (51, 19011), (53, 19062), (54, 19086), (56, 19113), (59, 19155), (60, 19188), (64, 19230), (65, 19260), (73, 19434), (79, 19617), (88, 19773), (90, 19857), (91, 19932), (94, 19998), (97, 20034), (102, 20184), (103, 20190), (112, 20385), (115, 20442), (116, 20451),

Gene: Parada_25 Start: 20607, Stop: 23117, Start Num: 3

Candidate Starts for Parada_25:

(Start: 3 @20607 has 14 MA's), (7, 20739), (9, 20754), (10, 20799), (11, 20817), (17, 20982), (21, 21036), (22, 21045), (27, 21123), (28, 21129), (30, 21294), (32, 21309), (34, 21345), (39, 21420), (40, 21432), (41, 21441), (42, 21447), (43, 21459), (44, 21471), (45, 21486), (47, 21504), (48, 21507), (50, 21543), (52, 21597), (58, 21720), (61, 21774), (63, 21795), (64, 21804), (69, 21906), (71, 21966), (72, 22014), (73, 22026), (74, 22071), (78, 22158), (79, 22197), (83, 22266), (84, 22278), (86, 22290), (94, 22578), (95, 22608), (98, 22689), (99, 22710), (101, 22737), (102, 22761), (106, 22926), (110, 22971), (114, 23070), (117, 23109),

Gene: Vordorf_29 Start: 24001, Stop: 26601, Start Num: 1

Candidate Starts for Vordorf_29:

(Start: 1 @24001 has 1 MA's), (4, 24115), (5, 24124), (27, 24601), (29, 24736), (30, 24772), (34, 24823), (35, 24826), (39, 24898), (44, 24949), (45, 24964), (47, 24982), (49, 25006), (66, 25336), (68, 25348), (70, 25420), (75, 25567), (77, 25597), (79, 25678), (81, 25720), (87, 25783), (89, 25909), (96, 26092), (98, 26173), (104, 26296), (105, 26371), (107, 26425), (111, 26485), (113, 26497),

Gene: WheatThin_25 Start: 20607, Stop: 23117, Start Num: 3

Candidate Starts for WheatThin_25:

(Start: 3 @20607 has 14 MA's), (7, 20739), (9, 20754), (10, 20799), (11, 20817), (17, 20982), (21, 21036), (22, 21045), (27, 21123), (28, 21129), (30, 21294), (32, 21309), (34, 21345), (39, 21420), (40, 21432), (41, 21441), (42, 21447), (43, 21459), (44, 21471), (45, 21486), (47, 21504), (48, 21507), (50, 21543), (52, 21597), (58, 21720), (61, 21774), (63, 21795), (64, 21804), (69, 21906), (71, 21966), (72, 22014), (73, 22026), (74, 22071), (78, 22158), (79, 22197), (83, 22266), (84, 22278), (86, 22290), (94, 22578), (95, 22608), (98, 22689), (99, 22710), (101, 22737), (102, 22761), (106, 22926), (110, 22971), (114, 23070), (117, 23109),