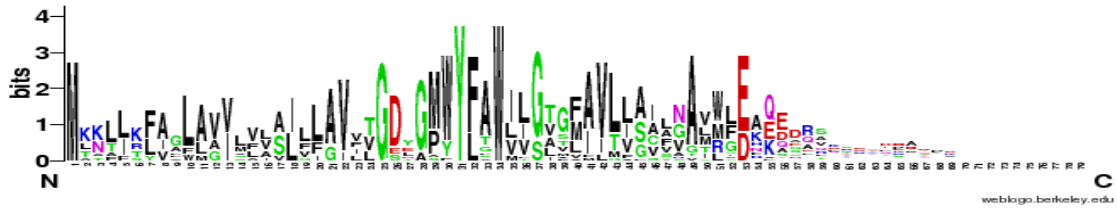


# Clade 1 (Grey clade)



```

NC_009749-YP_001427637-2-YP_00 -----MYYLAWIIISAGLAVTVGCFVATRLEKKEDQSK-----
NC_007880-YP_512984-YP_512983 -----MYYLAWIIISAGLAVTVGCFVATRLEKKEDQSK-----
NC_008601-YP_897857-YP_897856 -----MYYLAWIIISAGLAVTVGCFVATRLEKKEDQSK-----
NC_017450-YP_005825098-YP_0058 -----MYYLAWIIISAGLAVTVGCFVATRLEKKEDNSK-----
NC_015696-YP_004646713-YP_0046 -----MPYLLWITSAPVAVGAGCFVASRIDKKED-----
NC_017094-YP_005468840-YP_0054 -----MWYFVWIVGVTMAVTLVSMHALWFEIQEDQVITDRLRVDGKY-----
NC_016616-YP_005028130-YP_0050 -----MWYFTWILGLGFAVLLAVVNALWLEAKHTQE-----
NC_014147-YP_003626717-YP_0036 -----MWYFAWILGLGFAVLLAVVSAVWVEPEDSRRDGFNHPDDQK-----
NC_009524-YP_001279232-YP_0012 -----MWYFAWILGLGFAVLLAVVAVWLEHEQGRLDSEYKPKPKPENPNLTK-----
NC_009446-YP_001209030-YP_0012 -----MWYLTWLVGLGFAVLLAVLWGEFAQKRTENFAPKLPKEDAV-----
NC_012559-YP_002796245-YP_0027 -----MWYFAWVGLGFAVLLAILNALWGEHEEDRRLSLQQDAEADLHG-----
NC_008702-YP_932736-YP_932735 -----MWYFTWVGLGFAVLLAILNALWGEHEDARAQPAADDAAPLAPDARP-----
NC_007908-YP_523610-YP_523611 -----MWYFAWILGVSAVLLAILNAMWGENEERARQARSPDA-----
NC_016830-YP_005208492-YP_0052 -----MWYFAWMLGVGFALLLAILNAMWGENEAGRAMNDRDEGQP-----
NC_015379-YP_004353799-YP_0043 -----MWYFAWMLGVGFALLLAILNAMWGENEAGRAMSDRDEAQP-----
NC_014394-YP_003848159-YP_0038 -----MWYFAWVGLVSAVMPAVLNAVWYEAQCEAQIRGHDRAGLHSLR-----
NC_013959-YP_003523776-YP_0035 -----MWYFAWILGVSMALLLAINVTMMCDQAQCVTKKESSDKE-----
NC_014153-YP_003641759 -----MKKLLSLALFLVIGAVVIGIGILVGSNASWYFAWIFGTAFVLLAGAVVWERLDEPRTAEPHQPN-----
NC_011206-YP_002219519-YP_0022 -----MKNLLTFIGLAAMVLSLFLAVITGDYGPWYFAWLVGTTMIVLISAAGAIMFDRQDEEQKQGSTH-----
NC_015850-YP_004749631-YP_0047 -----MKKLLTFVGLAAMVLSLFLAVVTGDYGPWYFAWLVGTTMIVMISVAGAVMFDKQDEELAKKGINER-----
NC_017150-YP_005501971-YP_0055 -----MTKLLRLAGLAVVLSLFAVAVVGLDGPWYFAWVIGTVMIIISGAGAIMLDAQSNLSSDEEI-----
NC_013209-YP_003188057-YP_0031 -----MTKLLRLAGLAVVLSLFAVAVVGLDGPWYFAWVIGTVMIIISGAGAIMLDAQSNLSSDEEI-----
NC_009484-YP_001234760-YP_0012 -----MLNTIKFAALAVILFAAILLAVVTGDEGPWYFGWLVGTMMIVLISASGAVLFEAQQSAVLGRHPDDKV-----
NC_015186-YP_004283908-YP_0042 -----MLNTIKFAALAVILFAAILLAVVTGDEGPWYFGWLVGTMMIVLISASGAVLFEAQQSAVLGRHPDDKV-----
NC_017033-YP_005377664-YP_0053 -----MKTAIKVVLMGIALLAIVLAVILGETGAWYFAWLLGTVVIVLVSAGGVMLDAQIASVGRSEKSDAH-----
NC_010645-YP_785514-YP_785515 -----MAAFFKYIFWLVGSLIAIVLGVLLGDYGPWYLSVWLVGTGLMILVAASAGVLFEAQEDAQKIDAAQGR-----

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\*: \*: . : :

## Clade 2 (Light red)



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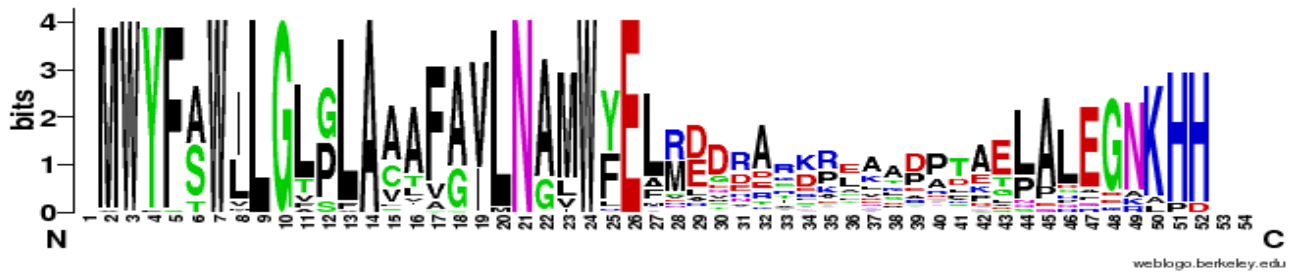
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NC_014733-YP_004038974-YP_0040      MWYFTWILGVGLALAFGIINVMWLESELFPFEQDTE-----
NC_015856-YP_004753412-YP_0047      MWYFAWILGVGLALAFGIINVMWLEANYAFGRSRDEETTRERFESAAAHEAKARKK
NC_014323-YP_003776453-YP_0037      MWYFAWILGIGLALAFGIINVMWLEANYAFGRRNAEQTHERFASARAAEKARRGGK
NC_010622-YP_001856538-YP_0018      MWYFSWILGIGLALALGIINVMWLEANNAVDAQAARDER-----
NC_010804-YP_001947195-YP_0019      MWYFSWILGIGVALSFGIVNAMWLEARQKQOEASVRVPRK-----
NC_010084-YP_001578676-YP_0015      MWYFSWILGIGVALSFGIVNAMWLEARQKQOEASVRVPRK-----
NC_008542-YP_836460-YP_836461-      MWYFSWILGIGVALSFGIVNAMWLEARQKTQEAPVRARRD-----
NC_008060-YP_622077-YP_622078-      MWYFSWILGIGVALSFGIVNAMWLEARQKTQEAPVRARRD-----
NC_010551-YP_001809428-YP_0018      MWYFSWILGIGVALSFGIVNAMWLEARQKQOEAPVRARRD-----
NC_008390-YP_774767-YP_774768-      MWYFSWILGIGVALSFGIVNAMWLEARQKQOEAPVRARRD-----
NC_009256-YP_001120748-YP_0011      MWYFSWILGMGVALSFGIVNAMWLEARQKQOEAAVTRRRD-----
NC_006348-YP_104657-YP_104656-      MWYFSWILGIGVALAFGIINAMWLEARQKRDA-----
NC_008836-YP_001027424-YP_0010      MWYFSWILGIGVALAFGIINAMWLEARQKRDA-----
NC_009076-YP_001064844-YP_0010      MWYFSWILGIGVALAFGIINAMWLEARQKRDA-----
NC_007651-YP_441012-YP_441011-      MWYFSWVLGIGVALAFGIINAMWLEARQKRDA-----
NC_010681-YP_001894217-YP_0018      MWYFSWILGIGVALAFGIINVMWLESRRPEDGSRKTR-----
NC_007951-YP_556904-YP_559110-      MWYFSWILGIGVALAFGIINALWLESARPVQGTTRRPDQKRV-----
NC_007951-YP_559109-YP_556903-      MWYFSWILGIGVALAFGIINVMWLESRRPLEAGPKPTH-----
NC_012724-YP_002912914-YP_0029      MWYFTWILGIGVALSFGVINAMWLESHEAHDHDA-----
NC_015381-YP_004362072-YP_0043      MWYFTWILGIGVALSFGVINAMWLESQEALDAQKQKQH-----
NC_014722-YP_004030295-YP_0040      MWYFSWILGIGVALAFGVINAMWLESHRDAQRLAKPSTEK-----
NC_008570-YP_856176-YP_856177-      MWYFTWILGLGFALLCGLVNLWLEARWADEDLKES-----
NC_009348-YP_001142488-YP_0011      MWYFTWILGLGFALLCGLVNLWLEARWADEDLKES-----
****:*:*:*:* **:* :***:

```

## Clade 3 (Maroon)

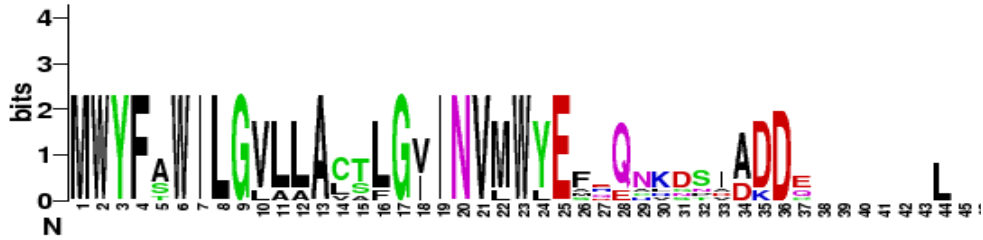
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NC_002977-YP_113575-YP_113576      MWYFAWILGVGFACAFGVINAMWLESVCDIDDPAGGAEN-----  
NC_015572-YP_004514181-YP_0045     MWYFAWILGVGFAAAFAIINAMWLESVCDIDTHGIDQSCDTMRKPNS  
NC_016112-YP_004915573-YP_0049     MWYFSWILGVGFACAFGIINAMWLEAECDFDHCDMDKAMPGEKCDDES  
****:*****.*.:*****: **.*      . :
```

# Clade 4 (Dark Red)



```
NC_017250-YP_005614206-YP_0056      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_012442-YP_002734277-YP_0027      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_015858-YP_004757703-YP_0047      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_010104-YP_001594460-YP_0015      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_016796-YP_005152847-YP_0051      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_004311-NP_699697-NP_699698      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_013118-YP_003105299-YP_0031      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_006933-YP_223479-YP_223478      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_016777-YP_005114314-YP_0051      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_009504-YP_001257479-YP_0012      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_010167-YP_001622325-YP_0016      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTAELALEGNKHH--
NC_009668-YP_001372076-YP_0013      -MWYFSWLLGLPLAAAFVFLNAMWYELMDDRRARKRLAADPTADLAREGKHH--
NC_011983-YP_002540641-YP_0025      -MWYFAWLLGFLPLAAAFVFLNAMWYELVDDNAKKNKRG-----
NC_003063-NP_356555-2-NP_356555      -MWYFAWLLGFLPLAAAFVFLNAMWYELMEENAKKAEKPEK-----
NC_015508-YP_004444278-YP_0044      -MWYFAWLLGFLPLAAAFVFLNAMWYELMEENAKKAEKPEK-----
NC_009937-YP_001523500-YP_0015      -MWYFAWLLGFLPLAAAFVFLNAMWYELMDEAKKRALTRK-----
NC_015717-YP_004677510-YP_0046      -MWYFAWLLGFLPLAAAFVFLNAMWYELMEDSAARAQTPAKGSAQRK-----
NC_013446-YP_003279474-YP_0032      -MWYFAWLLGFLPLAAAFVFLNAIFWFLMDDERTRKLLERTKSLPDA-----
NC_010002-YP_001563420-YP_0015      -MWYFAWLLGFLPLAAAFVFLNAMWYELMDDERTRKLLAREK-----
NC_012791-YP_002945250-YP_0029      -MWYFAWLLGFLPLAAAFVFLNAMWYELMDDDAIRKEKALPEAPQGGQERL----
NC_009138-YP_001099673-YP_0010      -MWYFAWLLGFLPLAAAFVFLNAMWYELMDDDAIRKEKLGNS-----
NC_009659-YP_001353704-YP_0013      -MWYFSWMLGFLPLAAAFVFLNAMWYELMDDDAIRKEKLNKPS-----
NC_014625-YP_003962821-YP_0039      -MWYFAWLLGFLPLAVTFVFLNAMWYELVDDAKKPEADAPDL-----
NC_017384-YP_005796367-YP_0057      -MWYFAWLLGFLPLAVTFVFLNAMWYELVDDAKKPEADAPDL-----
NC_011420-YP_002300189-YP_0023      -MWYFAWLLGFLPLAVVFAVFLNGLWFLREDAARGQDPDF-----
NC_014034-YP_003579216-YP_0035      -MWYFAWLLGFLPLAVVFAVFLNGLWFLREDAARGQDPDF-----
NC_012988-YP_003067568-YP_0030      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_012808-YP_002962309-YP_0029      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_011757-YP_002420353-YP_0024      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_010725-YP_001924011-YP_0019      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_011527-YP_002303533-YP_0023      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_011528-YP_002305253-YP_0023      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_016147-YP_004931548-YP_0049      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
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NC_017671-YP_006185556-YP_0061      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_003902-NP_637588-NP_637589      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_007086-YP_242968-YP_242967      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_003919-NP_642653-NP_642654      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_016010-YP_004851905-YP_0048      -MWYFAWLLGFLGLAAAVGLNALWYELRAVRETPPEVTPPLPTP-----
NC_017223-YP_005588539-YP_0055      -MWYFSWILGFLSLACAFILNALWFLERLYKDKS-----
NC_002927-NP_891032-NP_891031      -MWYFSWILGFLSLACAFILNALWFLERLYKDKS-----
NC_002929-NP_879142-NP_879143      -MWYFSWILGFLSLACAFILNALWFLERLYKDKS-----
NC_002928-NP_886170-NP_886169      -MWYFSWILGFLSLACAFILNALWFLERLYKDKS-----
NC_010170-YP_001629059-YP_0016      -MWYFSWILGFLSLACAFILNALWFLERLYKDKS-----
NC_014640-YP_003982142-YP_0039      -MWYFSWILGFLSLACAFILNALWFLERLYKDKS-----
NC_010645-YP_787606-YP_787605      -MWYFSWILGFLSLACAFILNALWFLERLYKDKS-----
NC_014125-YP_003618534-YP_0036      -MWYFSWILGFLSLACAFILNALWFLERLYKDKS-----
NC_009494-YP_001249996-YP_0012      -MWYFSWILGFLSLACAFILNALWFLERLYKDKS-----
NC_013861-YP_003456054-YP_0034      -VWYFSWILGFLSLACAFILNALWFLERLYKDKS-----
NC_013854-YP_003447980-YP_0034      -MWYFAWLVGVGFACGILNNAVWHEHHP-----ATDPTD-----
NC_014414-YP_003855869-YP_0038      -MWYFAWLVGVGFACGILNNAVWHEHHP-----ATDPTD-----
NC_008358-YP_760367-YP_760366      -MWYFTWILGFLGALVTFVFLNAMWYELVDDAKKPEADAPDL-----
NC_009511-YP_001264219-YP_0012      -MWYFSWLVGFLAVGVFLNGLWFLREDAARGQDPDF-----
NC_014816-YP_004086755-YP_0040      -MWYFTWVLGFLGLAVTFVFLNGLWFLREDAARGQDPDF-----
NC_010338-YP_001682265-YP_0016      -MWYFTWVLGFLGLAVTFVFLNGLWFLREDAARGQDPDF-----
NC_014100-YP_003594646-YP_0035      -MWYFTWVLGFLGLAVTFVFLNGLWFLREDAARGQDPDF-----
NC_002696-NP_419579-NP_419580      -MWYFTWVLGFLGLAVTFVFLNGLWFLREDAARGQDPDF-----
NC_011916-YP_002516173-YP_0025      -MWYFTWVLGFLGLAVTFVFLNGLWFLREDAARGQDPDF-----
::: :* ** .* .: :* : * *
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# Clade 5 (Yellow)



NC_007481-YP_340517-YP_340518-	MWYFAWILGVLLACTLGVINVMWYEFQQNKDSIADDEQVMHDLLETNTTKND
NC_014803-YP_004069149-YP_0040	MWYFAWILGVLLACTLGVINVMWYEFHQNKNSIADDEQATHDLLNEHNTTHND
NC_015497-YP_004435143-YP_0044	MWYFAWILGVLLACTLGVINVMWYEFQQNKDSIADDDQKELYEKLQKERN----
NC_008228-YP_661029-YP_661030-	MWYFAWILGVLLACTLGVINVMWYEFHQNKDSIADDEKELYERLQKERN----
NC_013851-YP_003444443-YP_0034	MWYFSWILGVLLALAFGIINVLWYESDQCRSTADDDCPT-----
NC_003910-YP_268606-YP_268607-	MWYFSWILGVLLAVSLGIINVMWYEMEQHVDNVAKDQDQDDQA-----
NC_017059-YP_005416849-YP_0054	MWYFTWILGLAAALSLGIINVMWLEAEEALGPDDD-----
	****:****: * :*:****:* * .: . .

## Clade 6 (Orange)



<p>NC_011586-YP_002319615-YP_0023            NC_014259-YP_003731902-YP_0037            NC_017162-YP_005515077-YP_0055            NC_005966-YP_046898-YP_046899-            NC_016603-YP_004995673-YP_0049            NC_015740-YP_004713644-YP_0047            NC_017532-YP_005937964-YP_0059            NC_009434-YP_001171817-YP_0011            NC_012560-YP_002799172-YP_0027</p>	<p>MWYFAWILGILMACFAGVLSALYIEHHQNLDEE-----            MWYFAWILGILMACFAGVLSALYIEHHQNLDEE-----            MWYFAWILGILMACFAGVLSALYIEHHQNLDEE-----            MWYFAWILGILMACFAGVLSALYIEHHQNLDEE-----            MWYFAWILGILMACFAGVLSALYIEHHQDLDEE-----            MWYFTWILGVLLACSFGIINALWLEATQDLDAEP----            MWYFTWILGVLLACSFGIINALWLEATQDLDAEP----            MWYFTWILGVLLACSFGIINALWLEATQDLDAEP----            MWYFSWILGILLACFGVINALWLETTMKMDEGPAGGE            ***:***:*:* *::*::*::* .:*</p>
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# Clade 7 (Pea Green)



```

NC_012997-YP_003075320-YP_0030      MWYFTWILGVLACSFGLINAMWLEATEDLDRSIDESEG
NC_015554-YP_004469330-YP_0044      MWYFTWILGVLACSFGLINAMWLESTEDMDRPEDAE--
NC_011138-YP_004428935-YP_0044      MWYFAWILGVLACSFGLINAMWLEATENMDRPEDQE--
NC_009654-YP_001340368-YP_0013      MWYFAWVLGVLACSFGLINAVWLEFPKGYEGEEEQK---
NC_015559-YP_004482249-YP_0044      MWYFAWILGILLACSFGLINAVWLEFPNGYEGEEEQH---
NC_015276-YP_004313696-YP_0043      MWYFAWVLGVLACSFGLINAVWLDFKGYEGEPQD----
*****:*:**:*****:***:**: . . . :

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## Clade 8 (Light Green)

NC\_008709-YP\_942171-YP\_942172-YP\_942173 MWYLAWMLGVLLACSLGIINALWYEQVEANENAEGIDEDQHS





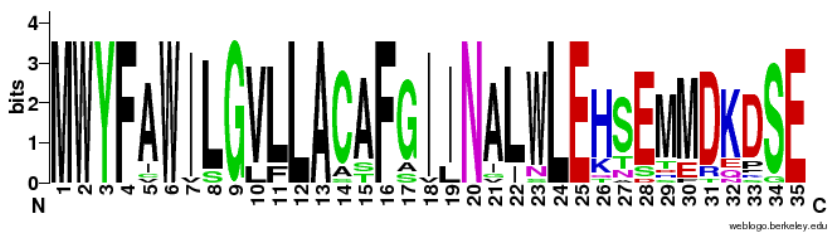
## Clade 10 (Light Blue)



NC\_015424-YP\_004391251-YP\_0043  
 NC\_008570-YP\_858102-YP\_858101-  
 NC\_009348-YP\_001140647-YP\_0011  
 NC\_012691-YP\_002893889-YP\_0028

MWYFTWILGLLACAFGIINALWLEHTENMDRQIDENK  
 MWYFTWILGLLACAFGIINALWLEHTENMDRQIDENK  
 MWYFTWILGLLACSGFIINALWLEHTENMDRQIDEDK  
 MWYFTWVLGVLLACSGFIINALWLEHTENMDRRVDDK-  
 \*\*\*\*\*:\*\*:\*\*\*\*:\*\*\*\*\*:\*\*\*\*\*:\*\*\*:

# Clade 11 (Dark Blue)



```

NC_013456-YP_003286546-YP_0032      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_016602-YP_004993493-YP_0049      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_004603-NP_797432-NP_797433-      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_016613-YP_005022451-YP_0050      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_009783-YP_001444799-YP_0014      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_015633-YP_004565937-YP_0045      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_014965-YP_004188254-YP_0041      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_004459-NP_761020-2-NP_76102      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_011753-YP_002416724-YP_0024      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_011184-YP_002155716-YP_0021      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_006840-YP_204336-YP_204337-      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_017270-YP_005634201-YP_0056      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_016944-YP_005333649-YP_0053      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_011312-YP_002263286-YP_0022      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_006370-YP_130739-YP_130738-      MWYFAWILGVLLACAFGIINALWLEHSEMMDKDE
NC_015633-YP_004566093-YP_0045      MWYFCWVLGVLLACAFGIINGLWLEQAHEHFDSE--
NC_017269-YP_005632513-YP_0056      MWYFIWISGLFLAATFSILNIINLEKNSTERQP--
NC_016945-YP_005333519-YP_0053      MWYFIWISGLFLAATFSILNIINLEKNSTERQP--
NC_011753-YP_002417300-YP_0024      MWYFVWILGLFLASAFVNLNVISLEKSDSETEF--
**** *: *:*:*:*:*:*:* : ** . . :

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# Clade 13 (Dark Purple)



```

NC_010658-YP_001880824-YP_0018      MWYLLWFGIILLMCSLSTLVLVWLDPRLK-----
NC_007613-YP_408646-YP_408645-      MWYLLWFGIILLMCSLSTLVLVWLDPRLK-----
NC_016822-YP_005455632-YP_0054      MWYLLWFGIILLMCSLSTLVLVWLDPRLK-----
NC_007384-YP_309953-YP_309954-      MWYLLWFGIILLMCSLSTLVLVWLDPRLK-----
NC_011748-YP_002402178-YP_0024      MWYLLWFGIILLMCSLSTLVLVWLDPRLK-----
NC_008253-YP_668897-YP_668898-      MWYLLWFGIILLMCSLSTLVLVWLDPRLK-----
NC_004741-NP_836687-NP_836688-      MWYLLWFGIILLMCSLSTLVLVWLDPRLK-----
NC_017328-YP_005726619-YP_0057      MWYLLWFGIILLMCSLSTLVLVWLDPRLK-----
NC_007606-YP_402616-YP_402617-      MWYLLWFIGIILLMCSLSTLVLVWLDPRLK-----
NC_013508-YP_003297038-YP_0032      MWYLLWFGIILLMCSLSTLILVWLEPRLK-----
NC_010067-YP_001570193-YP_0015      MWYLLWFGIILLMCSLSTLALVWLESRQQ-----
NC_011149-YP_002146232-YP_0021      MWYLLWFGIILLMCSLSTLALVWLESRQQ-----
NC_015761-YP_004730506-YP_0047      MWYLLWFGIILLMCSLSTLTLVWLESRQK-----
NC_011740-YP_002382344-YP_0023      MWYQLWFGIILLCAITSLVLVWLEPRFESAKKDEADGNHKIA
NC_012779-YP_002934774-YP_0029      MWYFAWILGTLMACFFAIITAMAIESREAKAAQDQK-----
***  *::* *: * :: : : ::.*

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