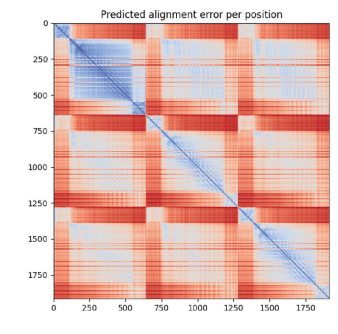
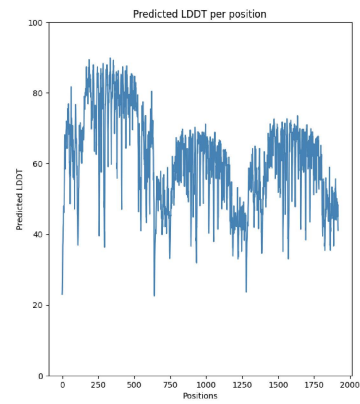
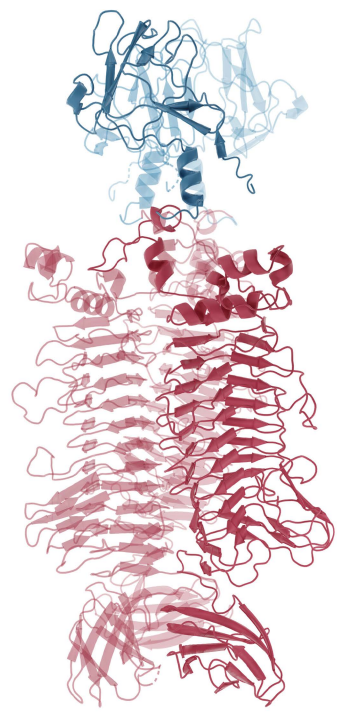


Name: 611R6_RBP

Subtype target serogroup: 02

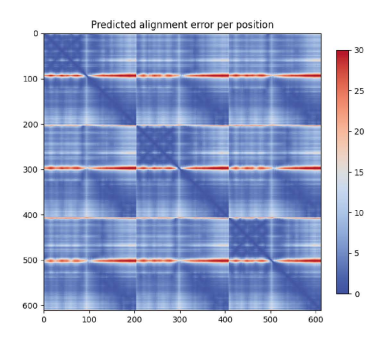
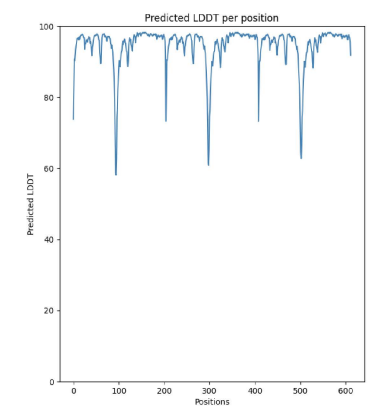
Genus: Lederbergvirus



a. b. c.

Subtype target serogroup: 02

Genus: Uetakevirus

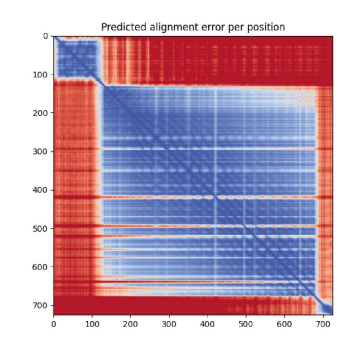
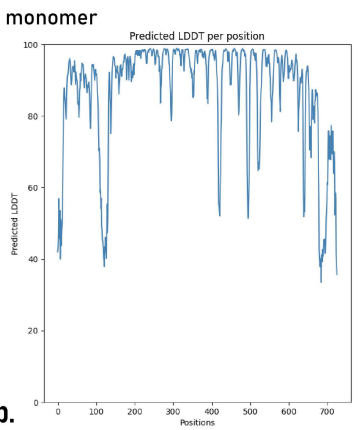
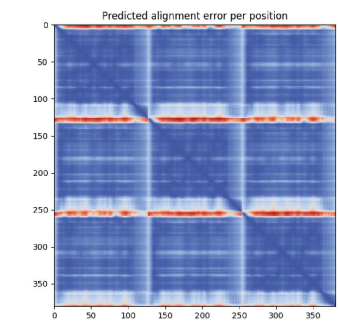
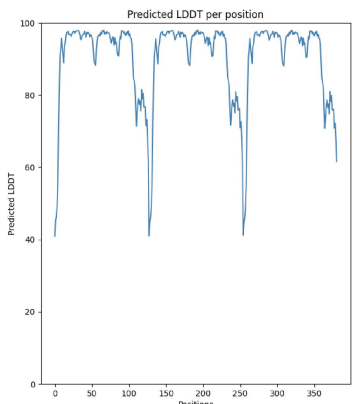
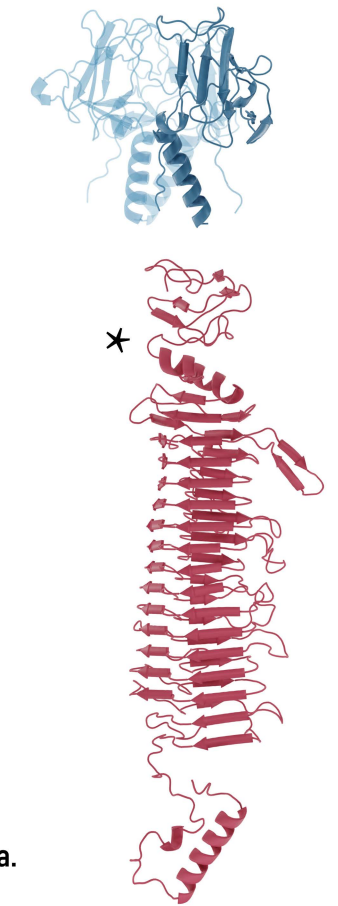


a. b. c.

Name: 90-1_Prophage_RBP

Subtype target serogroup: 08

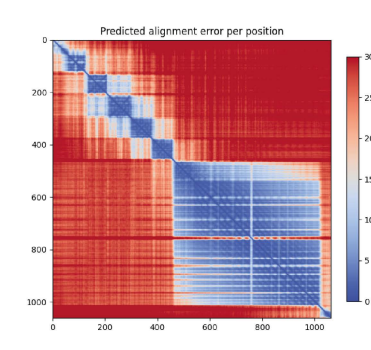
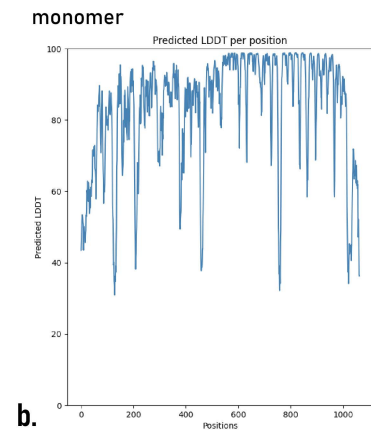
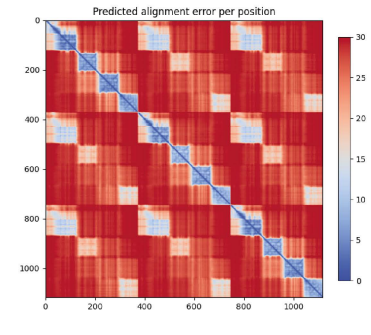
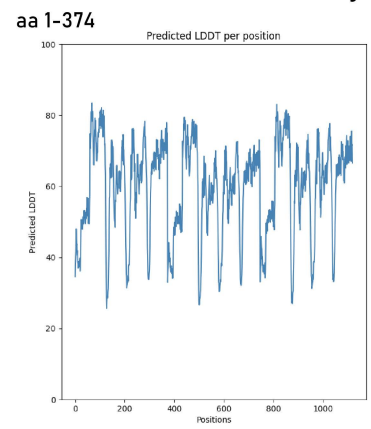
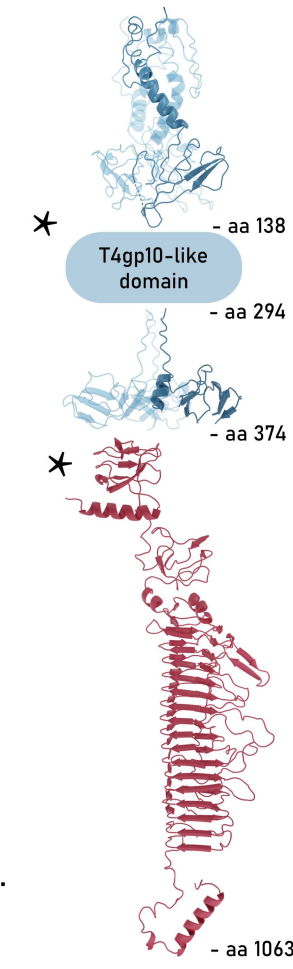
Genus: Lederbergvirus



a. b. c.

Subtype target serogroup: 08

Genus: Gamaleyavirus

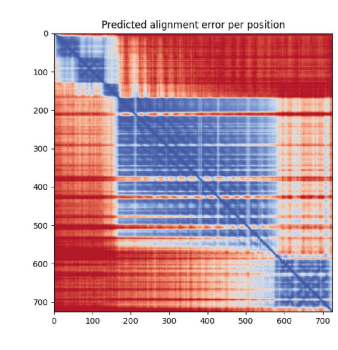
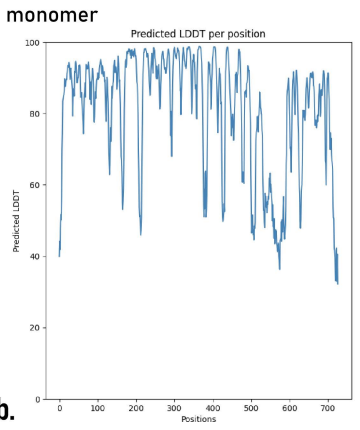
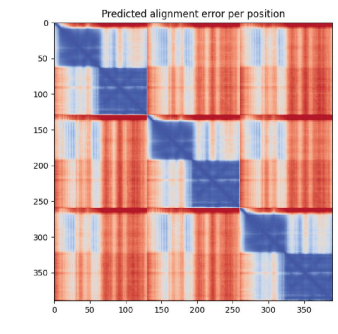
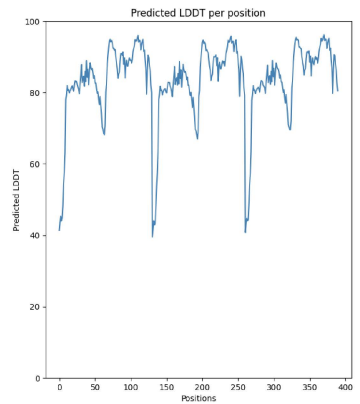
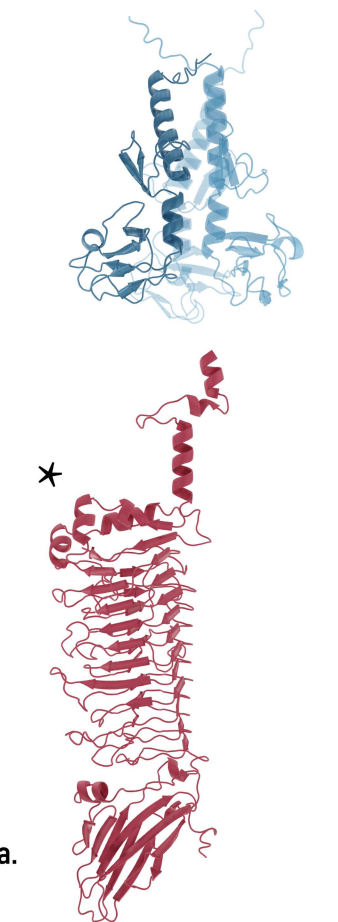


a. b. c.

Name: 590B_RBP

Subtype target serogroup: 016

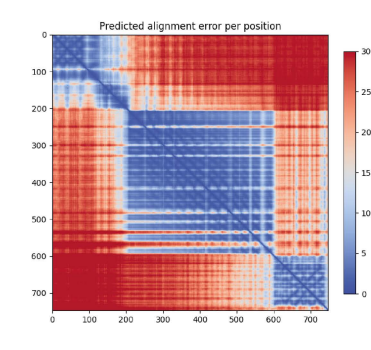
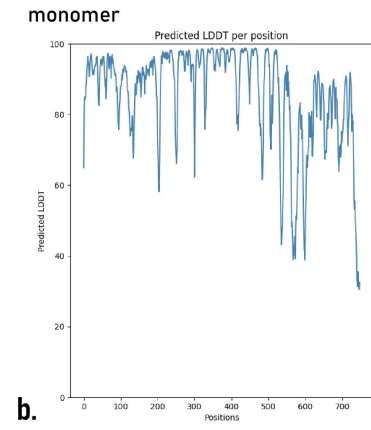
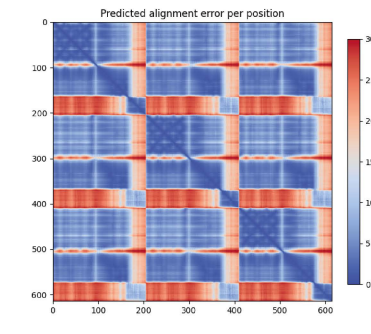
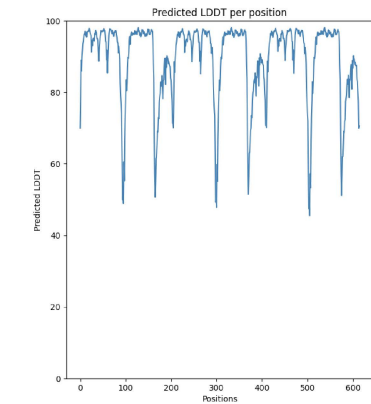
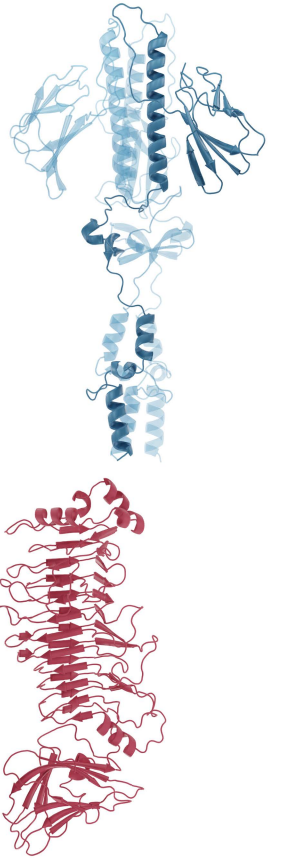
Genus: Kagunavirus



a. b. c.

Subtype target serogroup: 016

Genus: Uetakevirus

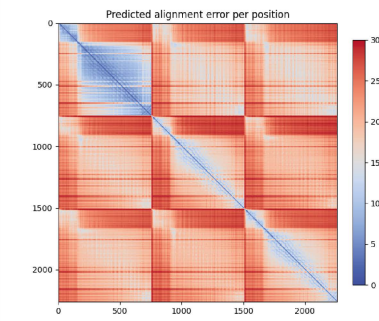
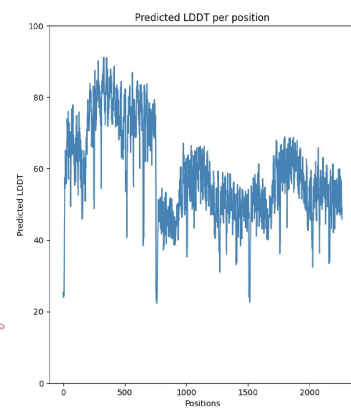
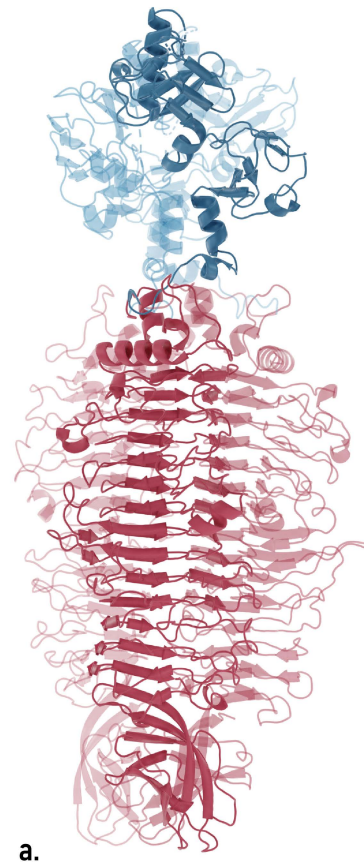


a. b. c.

Name: EP75_RBP1

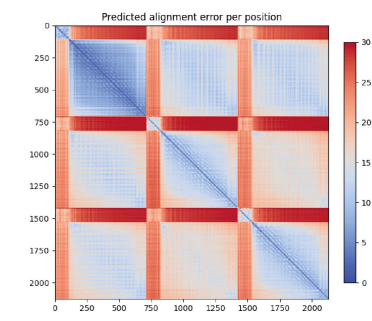
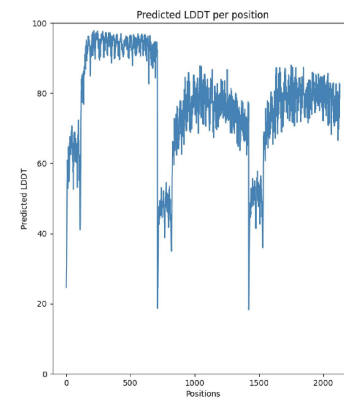
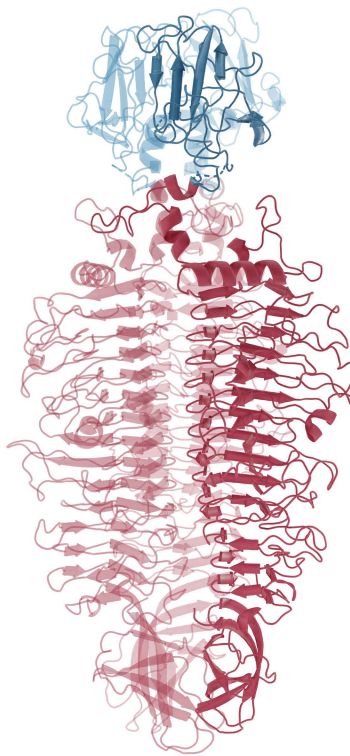
Subtype target serogroup: 018

Genus: *Kuttervirus*



Subtype target serogroup: 018

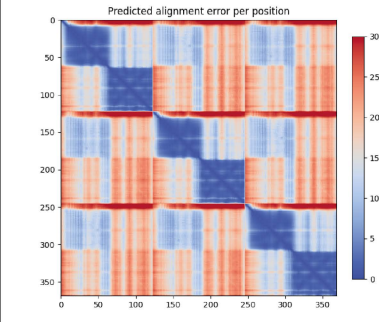
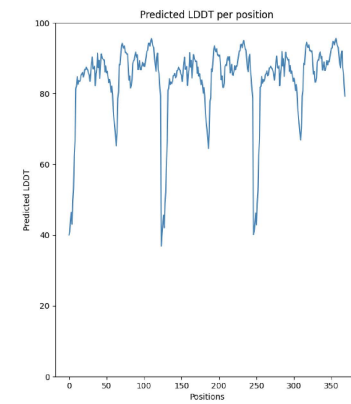
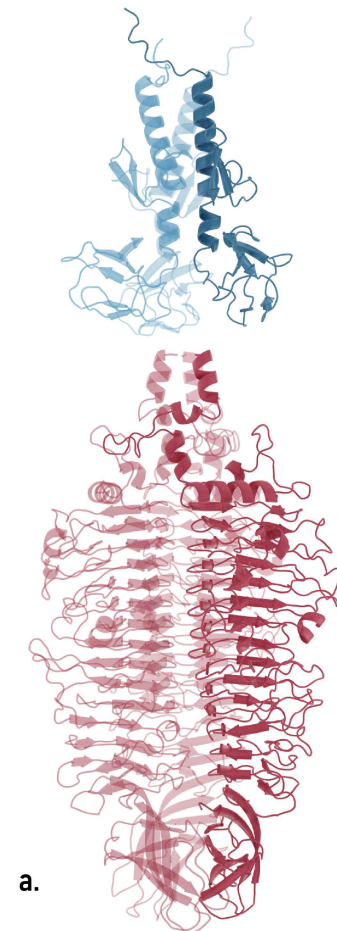
Genus: *Lederbergvirus*



Name: Klind1_RBP

Subtype target serogroup: 018

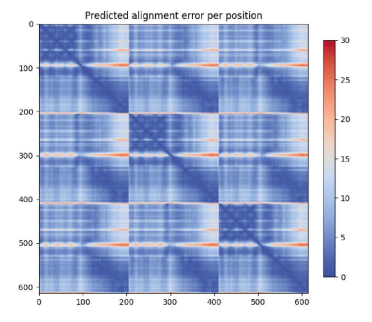
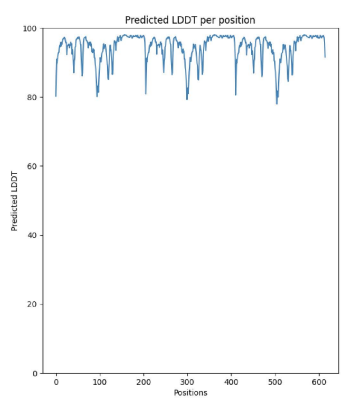
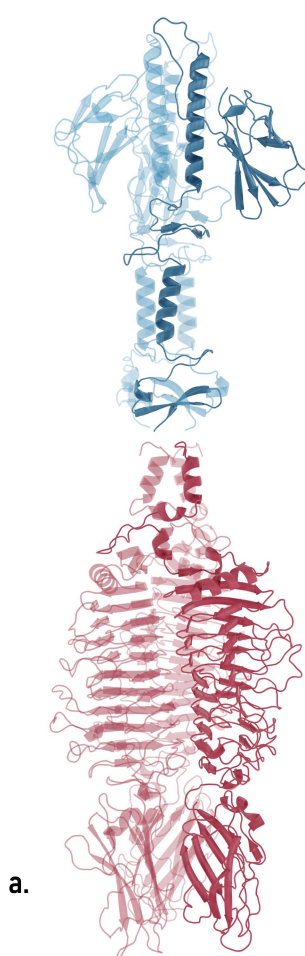
Genus: *Kagunavirus*



Name: CP8-3_Sichuan_Prophage_RBP

Subtype target serogroup: 045

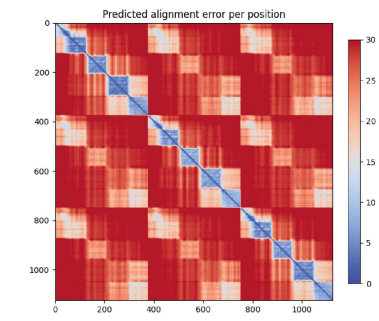
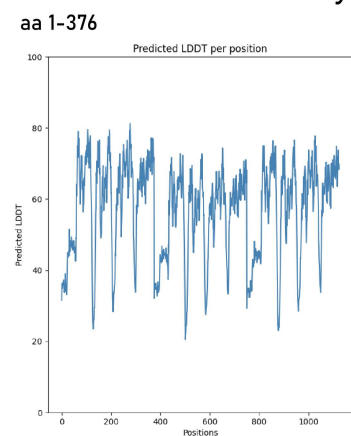
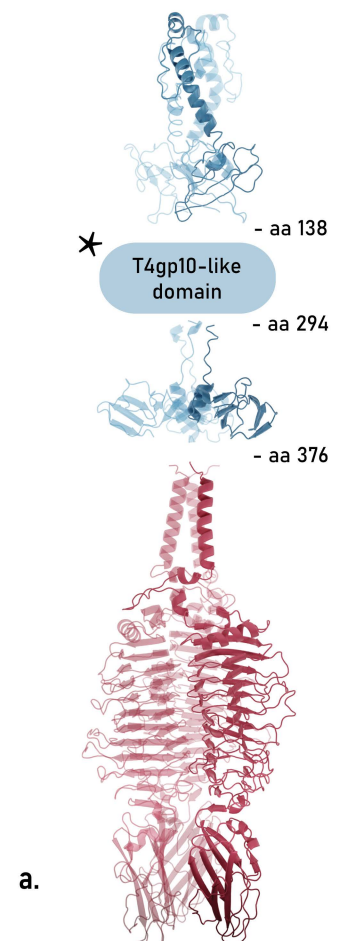
Genus: *Uetakevirus*



Name: Phapec7_RBP1

Subtype target serogroup: 045

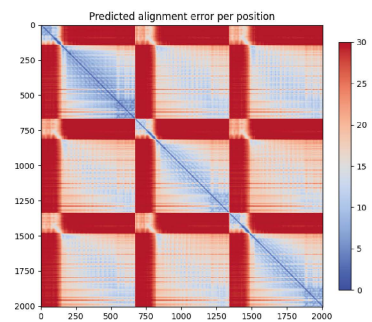
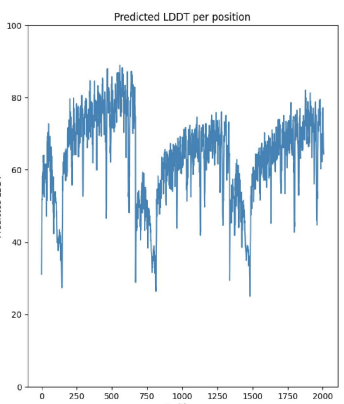
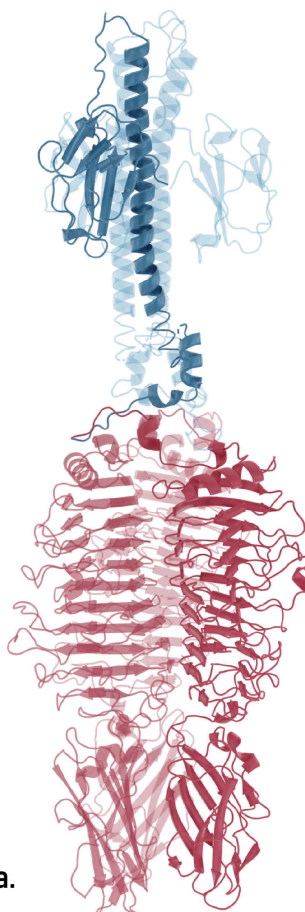
Genus: *Gamaleyavirus*



Name: Ro45lw_RBP

Subtype target serogroup: 045

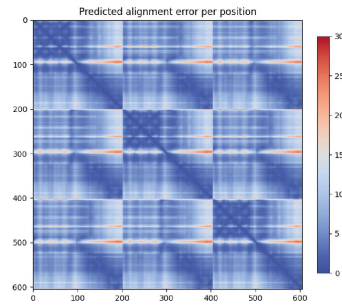
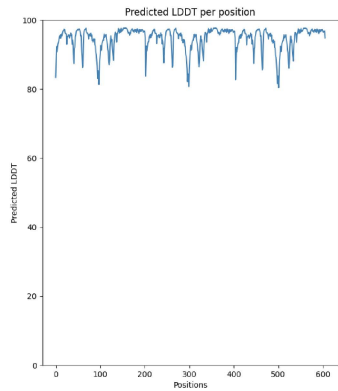
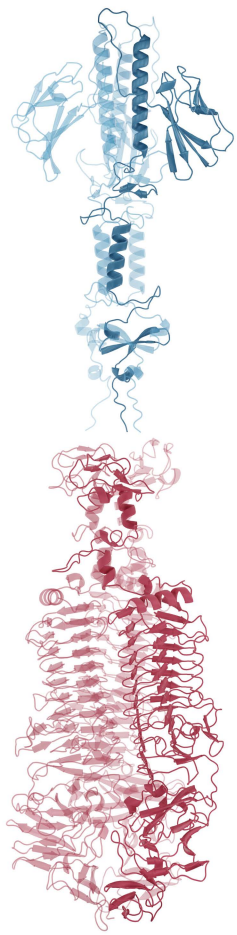
Genus: *Kayfunavirus*



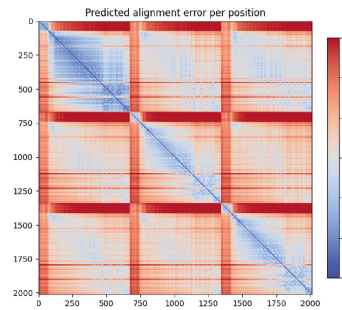
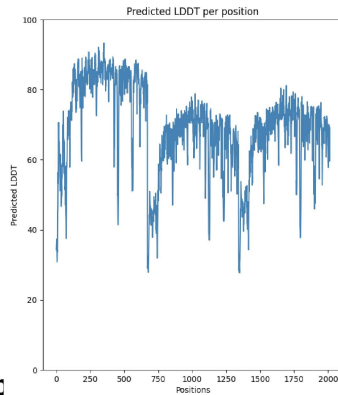
Name: E2865_Prophage_RBP

Subtype target serogroup: 026

Genus: Uetakevirus



b.

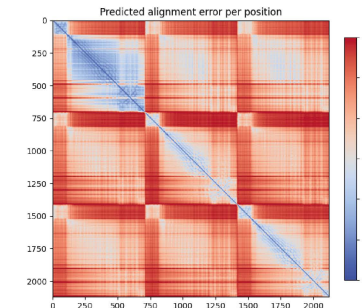
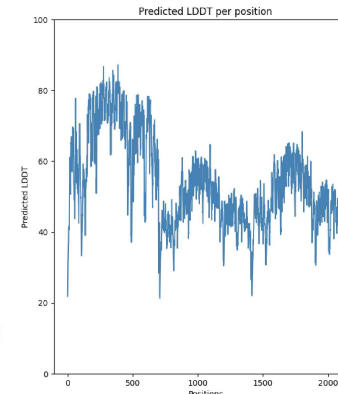
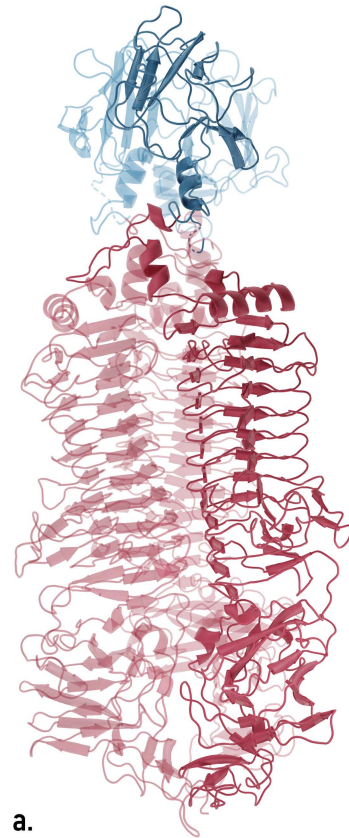


a.

Name: RM10386_Prophage_RBP

Subtype target serogroup: 026

Genus: Lederbergvirus



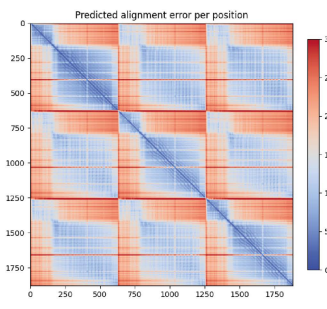
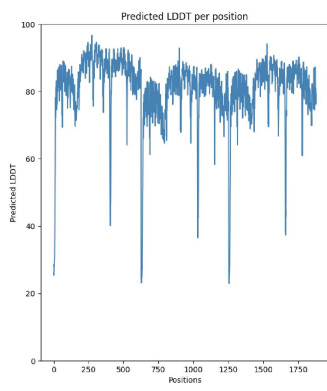
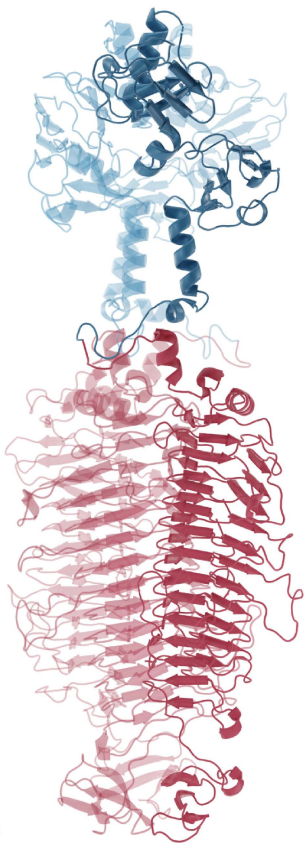
b.

c.

Name: CBA120_RBP3

Subtype target serogroup: 077

Genus: Kuttervirus



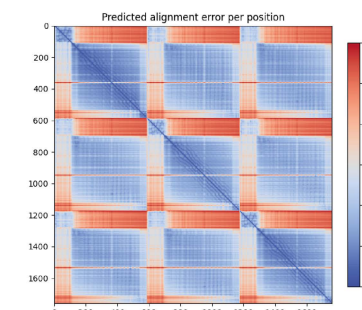
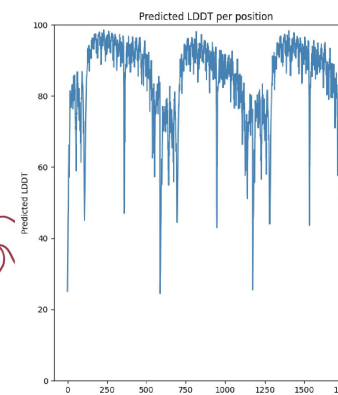
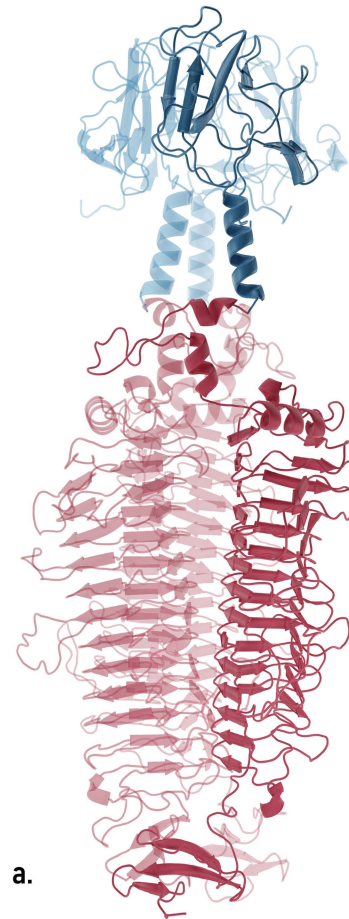
b.

c.

Name: RM-055-WU_Prophage_RBP

Subtype target serogroup: 077

Genus: Lederbergvirus



b.

c.

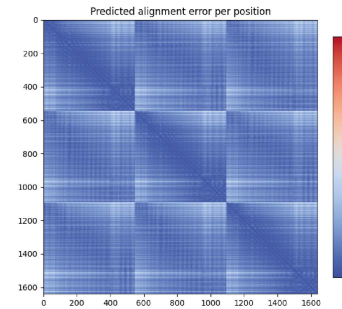
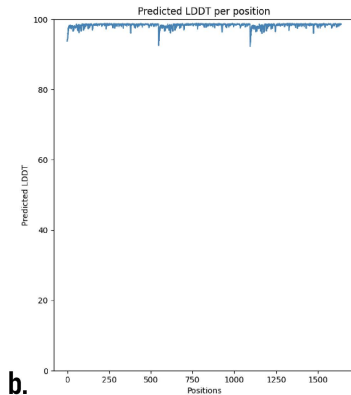
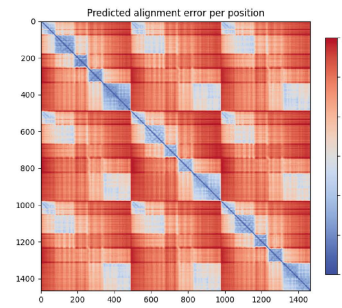
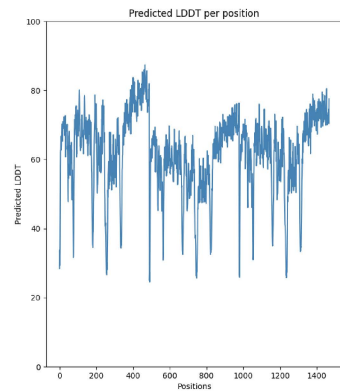
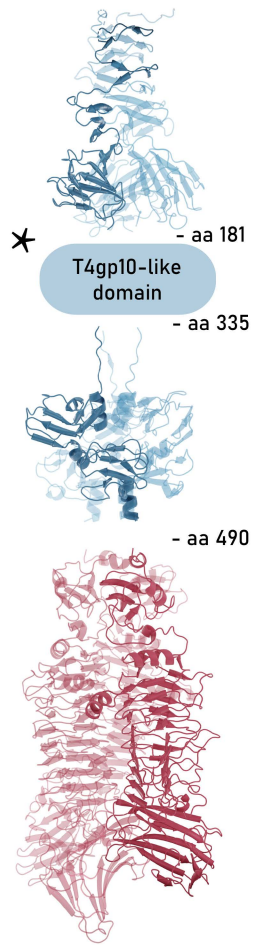
a.

a.

Name: CBA120_RBP4

Subtype target serogroup: 078

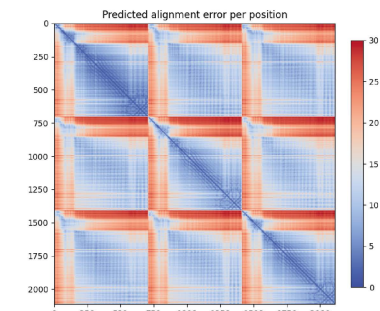
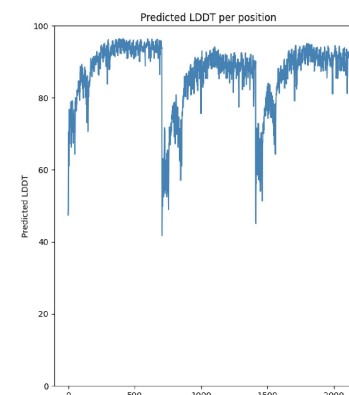
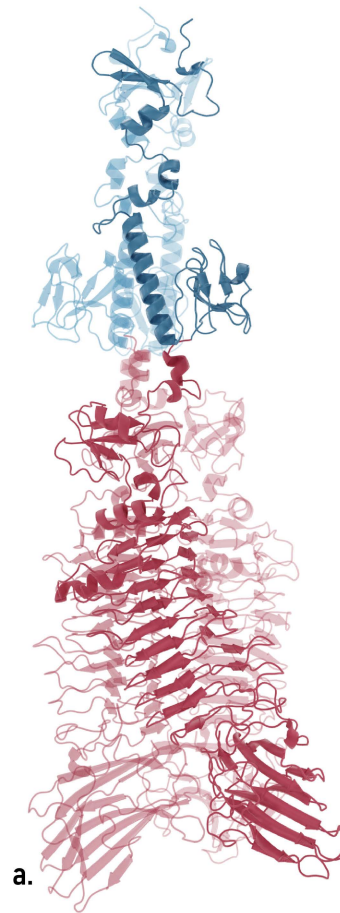
Genus: *Kuttervirus*



Name: PD06_RBP

Subtype target serogroup: 078

Genus: *Justusliebivirus*

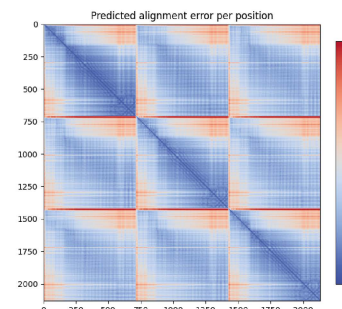
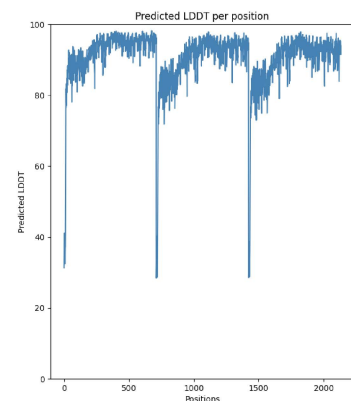
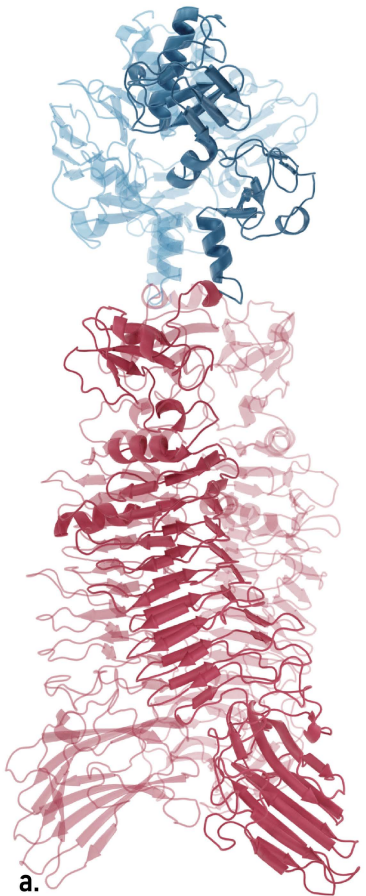


a. b. c.

Name: Phapec7_RBP2

Subtype target serogroup: 078

Genus: *Gamaleyavirus*

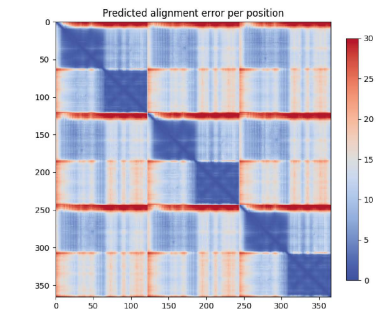
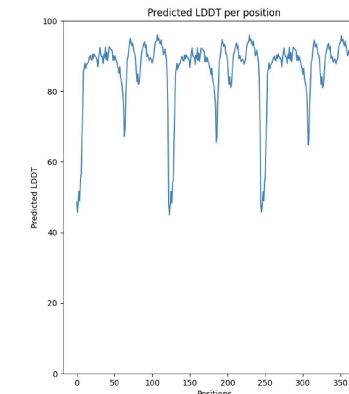
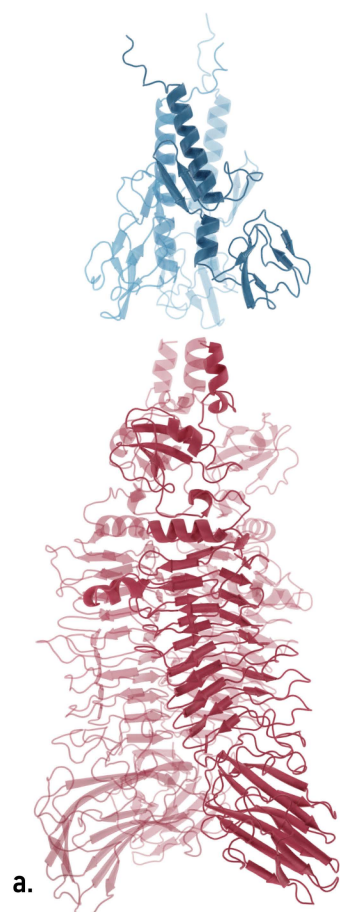


a. b. c.

Name: phiWA078-1_RBP

Subtype target serogroup: 078

Genus: *Kagunavirus*

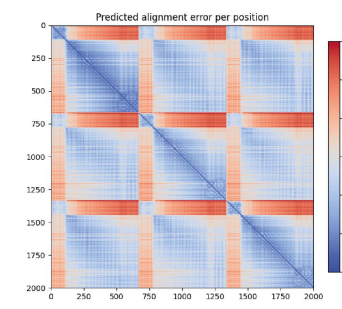
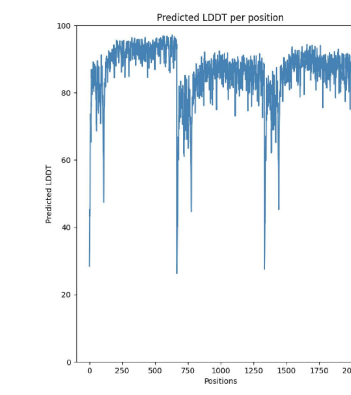
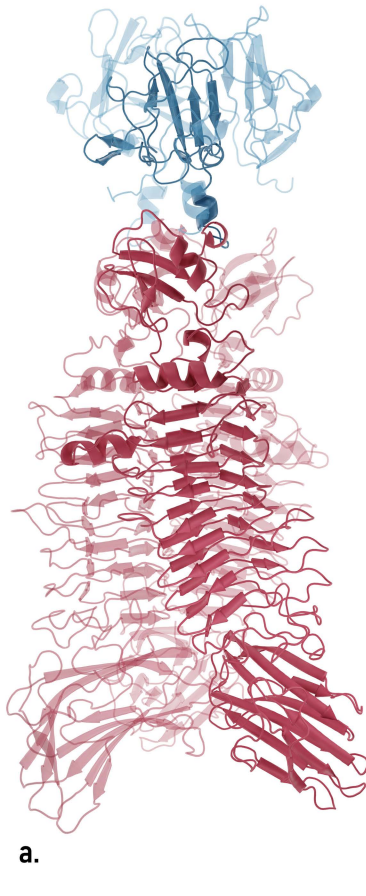


a. b. c.

Name: RHB17-C10_Prophage_RBP

Subtype target serogroup: 078

Genus: *Lederbergvirus*

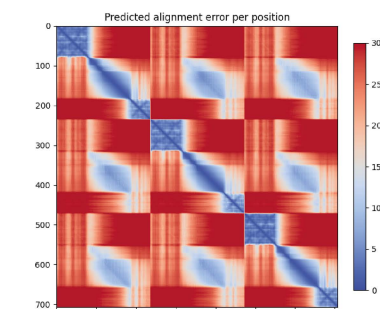
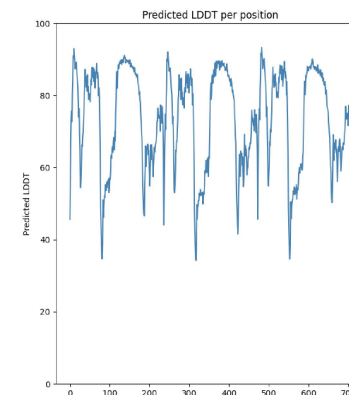
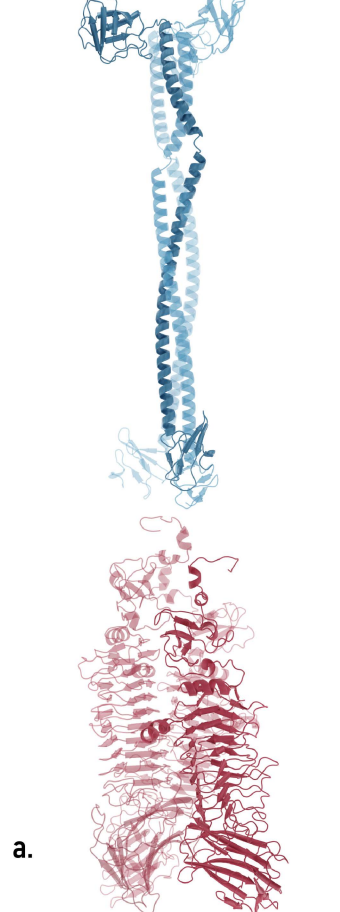


a. b. c.

Name: ESC041_RBP

Subtype target serogroup: 078

Genus: *Nouzillyvirus*

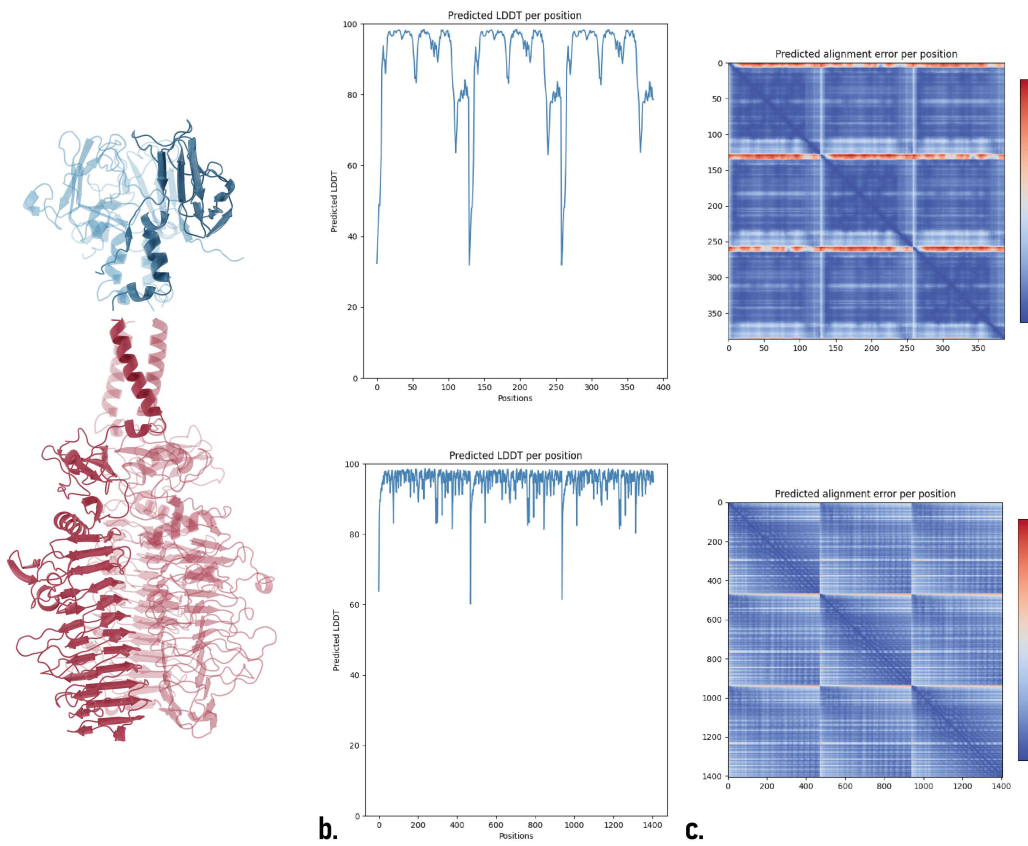


a. b. c.

Name: RHB38-C21_Prophage_RBP

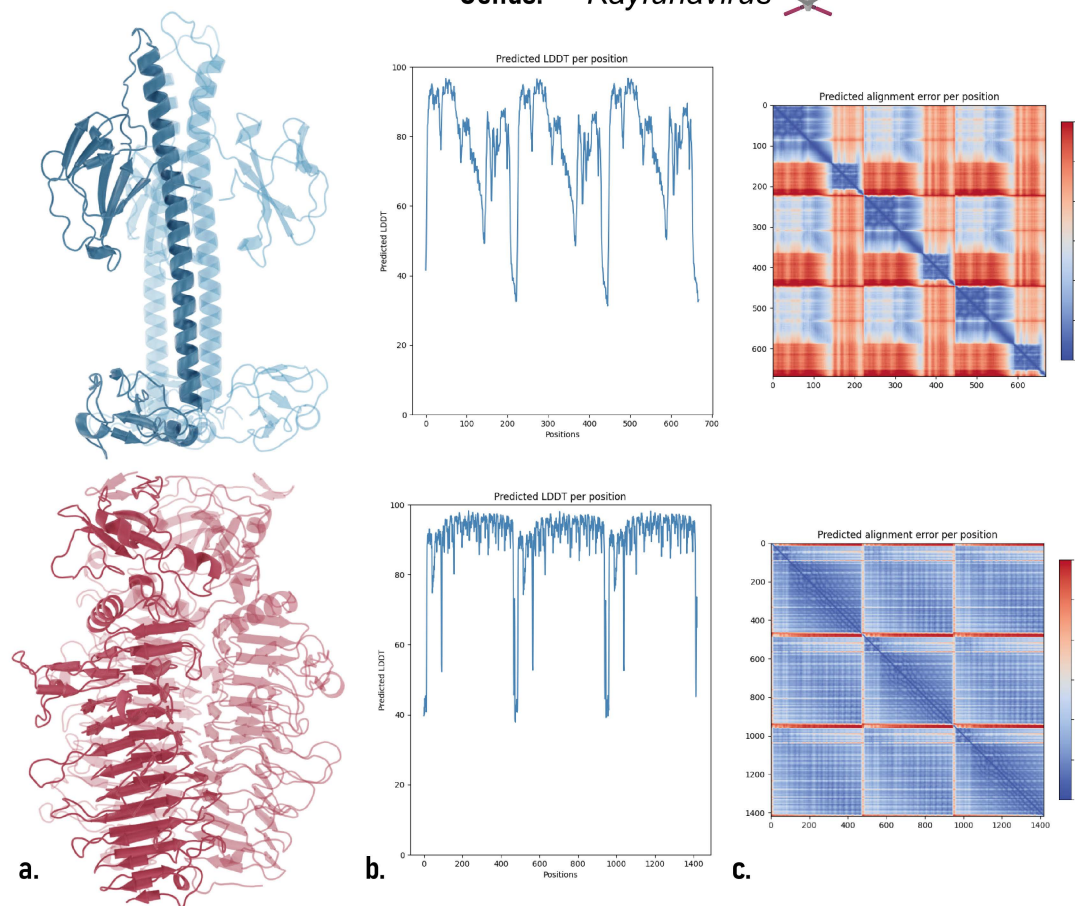
Subtype target serogroup: 0103

Genus: Lederbergvirus



Subtype target serogroup: 0103

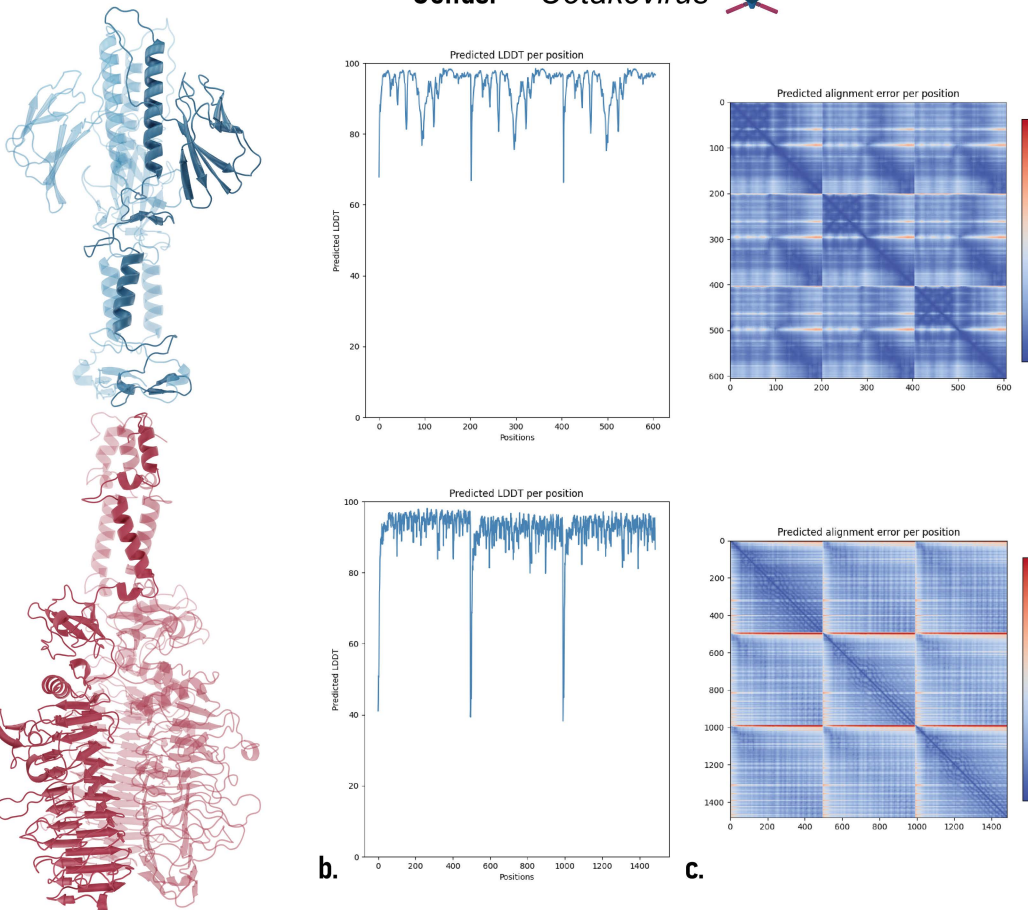
Genus: Kayfunavirus



Name: TL-2011b_RBP

Subtype target serogroup: 0103

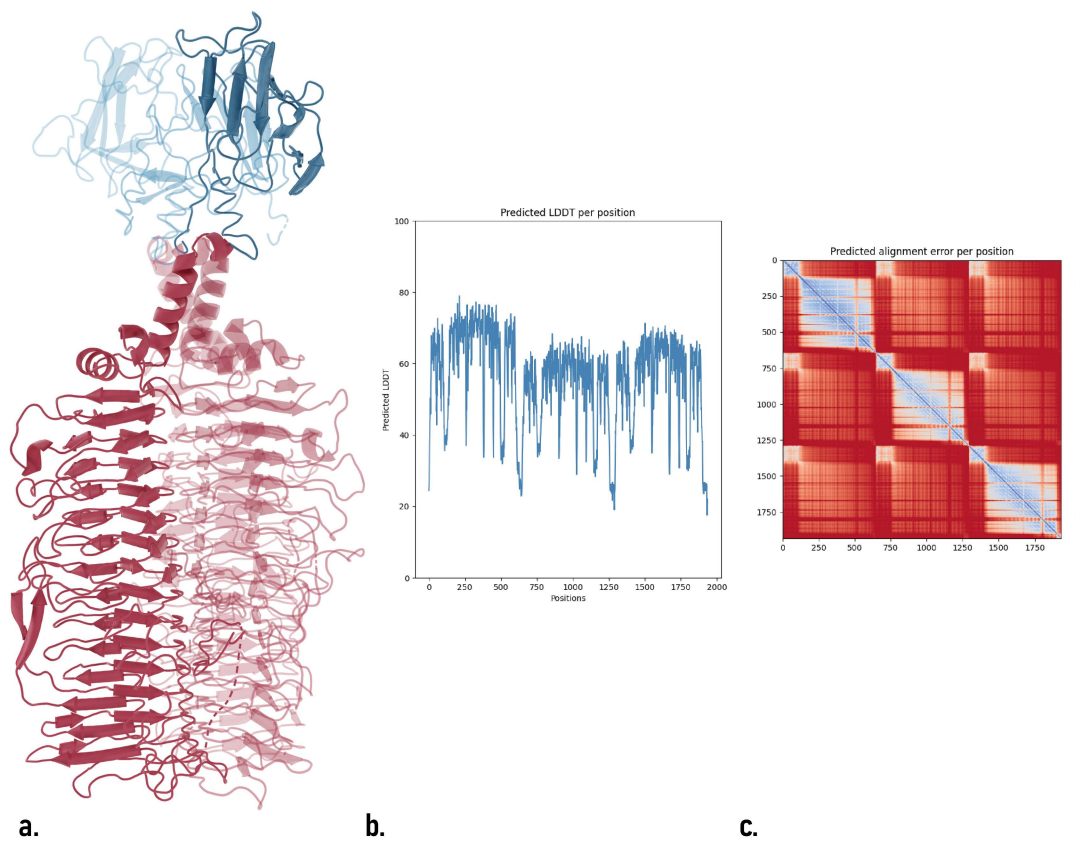
Genus: Uetakevirus



Name: 110512_RBP

Subtype target serogroup: 0111

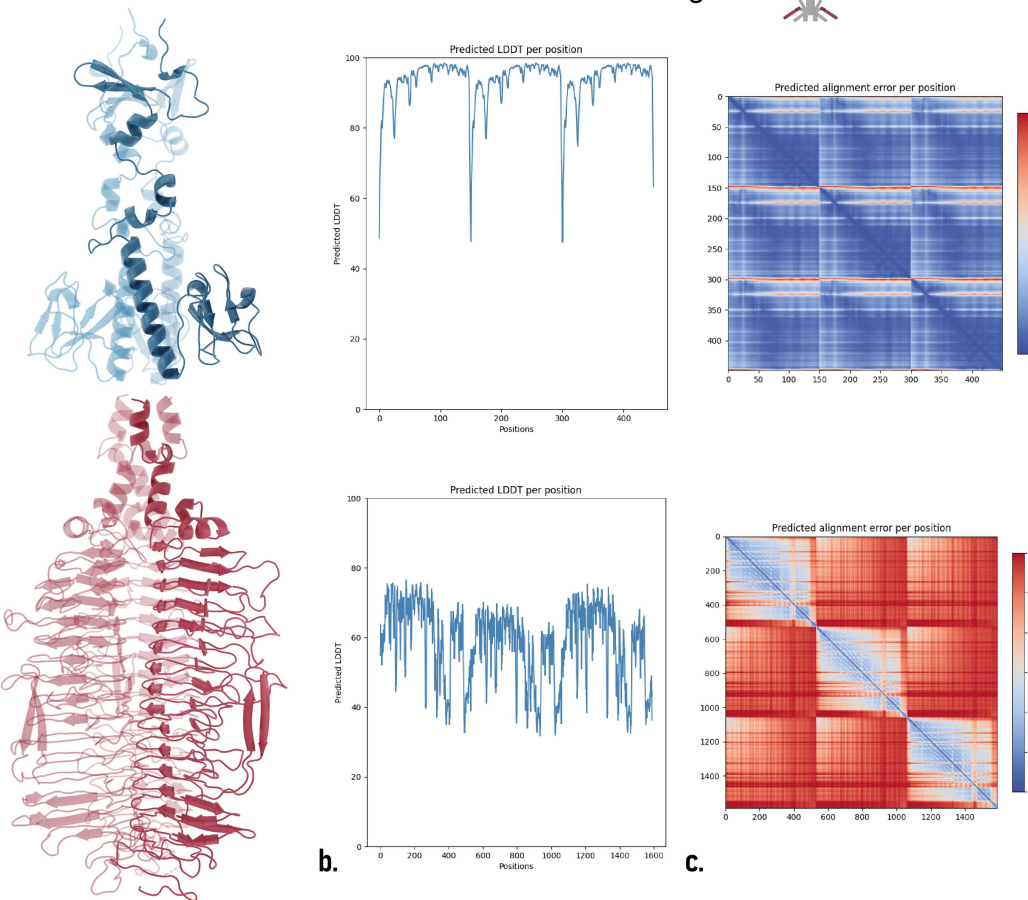
Genus: Lederbergvirus



Name: ECGD1_RBP

Subtype target serogroup: 0111

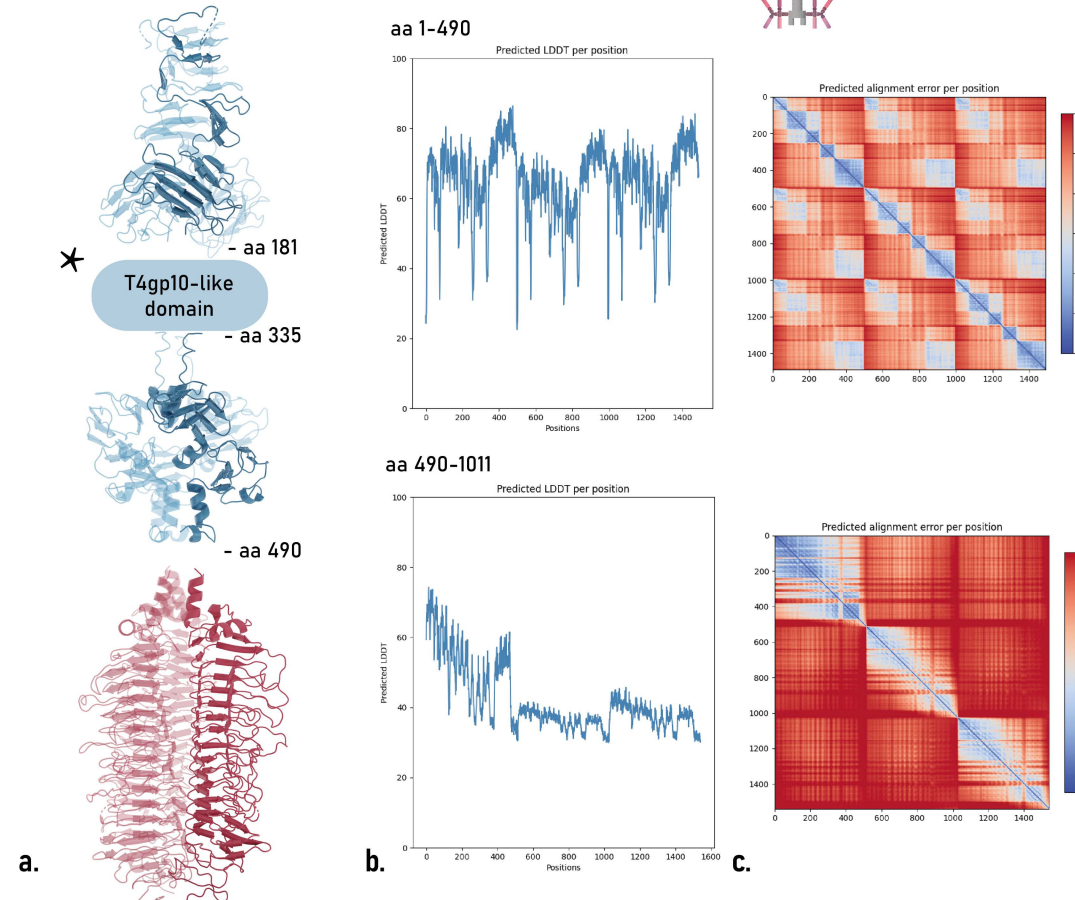
Genus: Justusliebigvirus



Name: STP55_RBP4

Subtype target serogroup: 0111

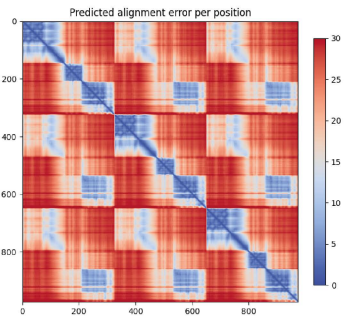
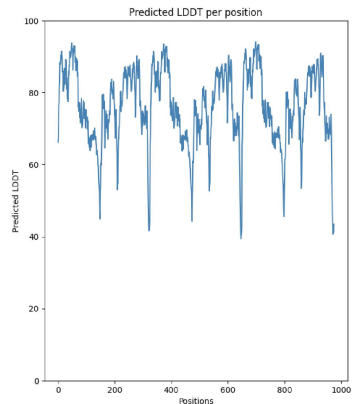
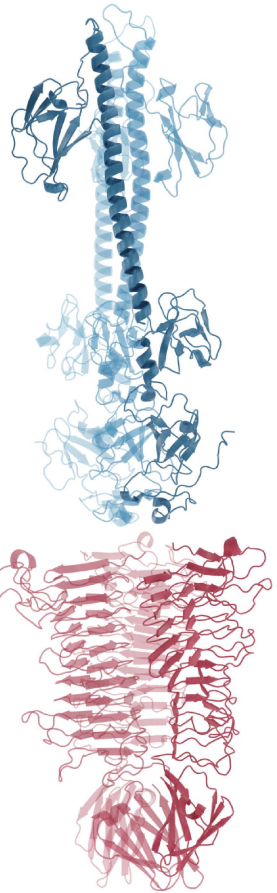
Genus: Kuttervirus



Name: CLB-P1_RBP

Subtype target serogroup: 0104

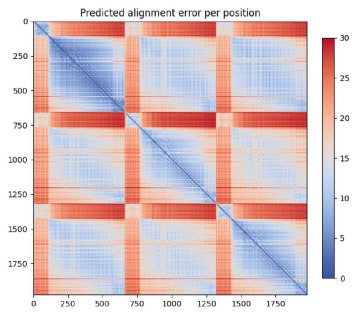
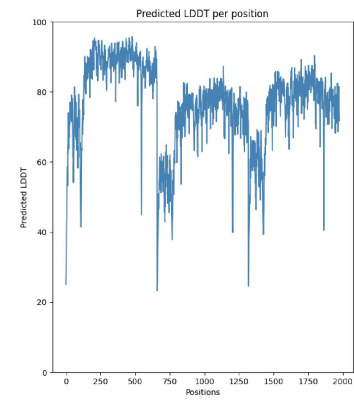
Genus: *Kayfunavirus*



Name: LB22692_Prophage_RBP

Subtype target serogroup: 0104

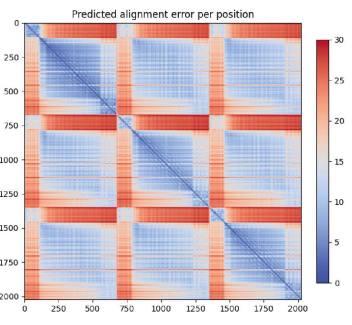
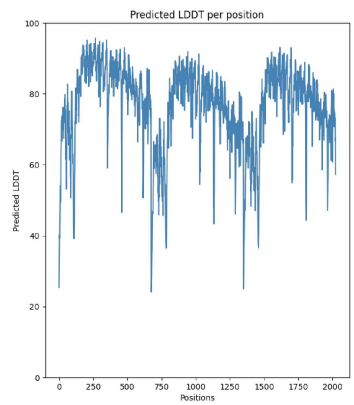
Genus: *Lederbergvirus*



Name: FHI58_Prophage_RBP

Subtype target serogroup: 0145

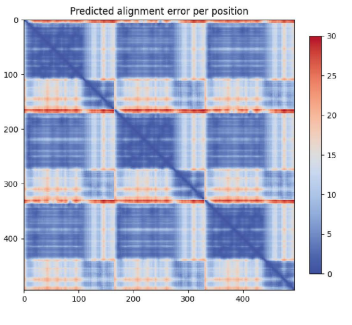
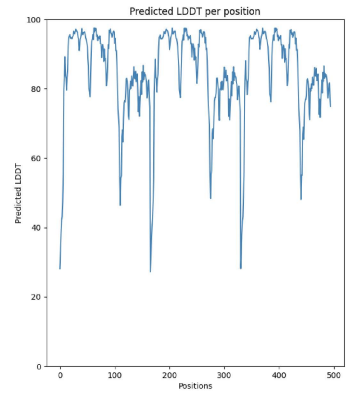
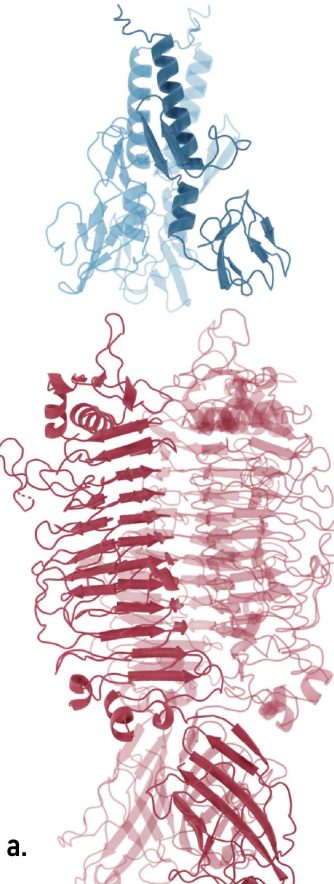
Genus: *Lederbergvirus*



Name: Ro145c2YLVW_RBP

Subtype target serogroup: 0145

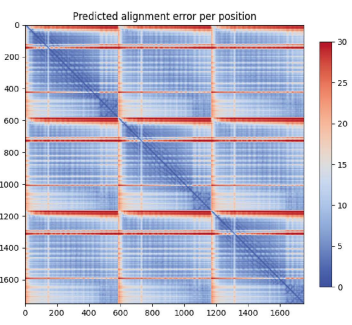
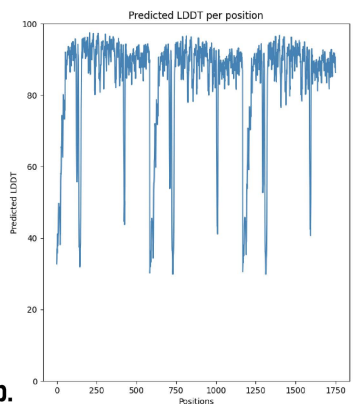
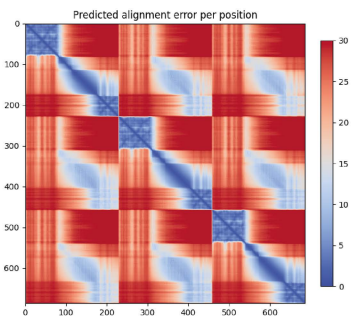
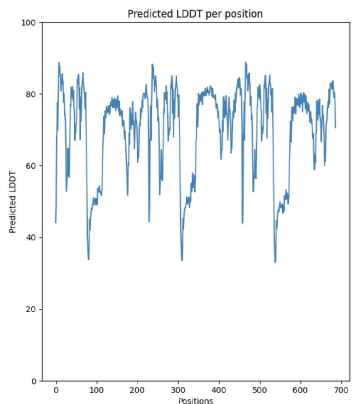
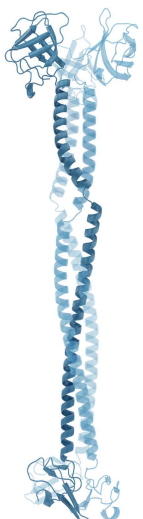
Genus: *Kagunavirus*



Name: P818_RBP

Subtype target serogroup: 0145

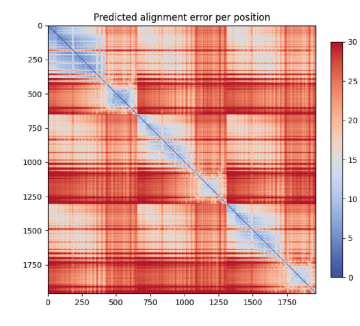
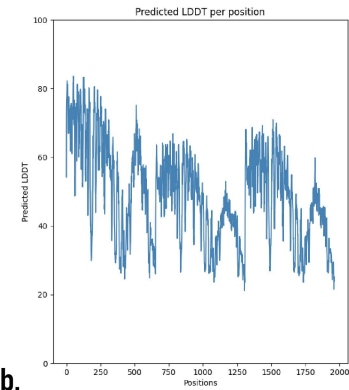
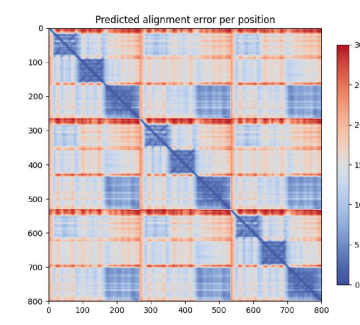
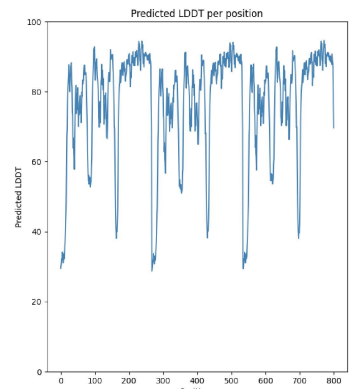
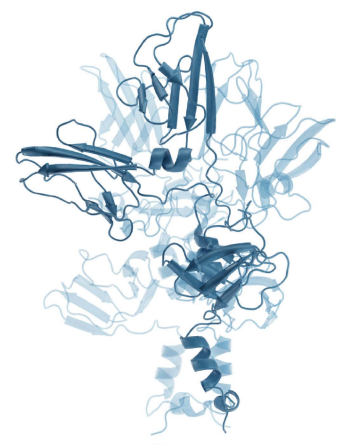
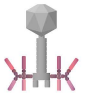
Genus: *Nouzillyvirus*



Name: **CBA120_RBP2**

Subtype target serogroup: **0157**

Genus: *Kuttervirus*



a.

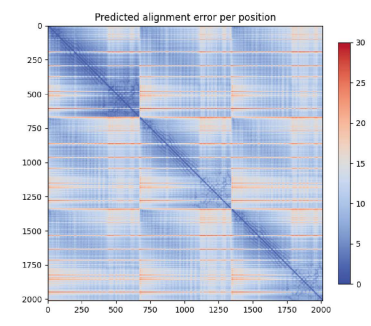
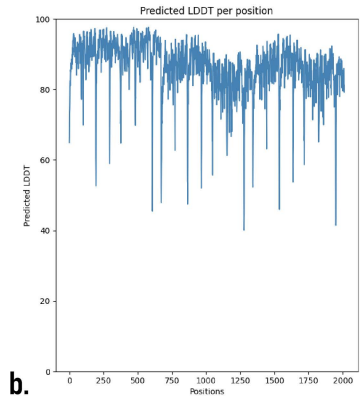
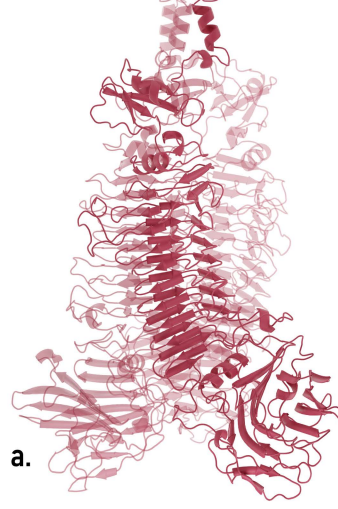
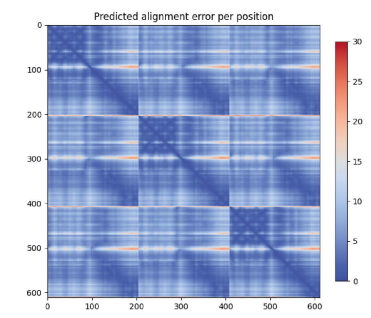
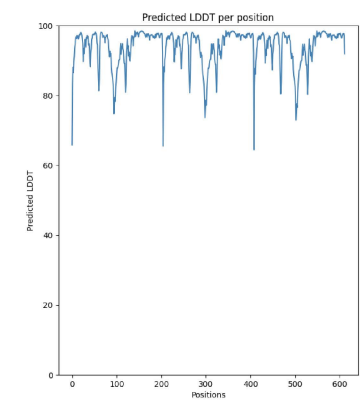
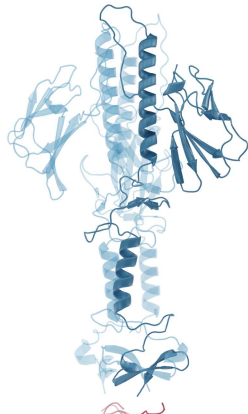
b.

c.

Name: **phiV10_RBP**

Subtype target serogroup: **0157**

Genus: *Uetakevirus*



a.

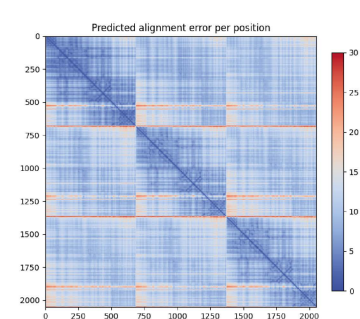
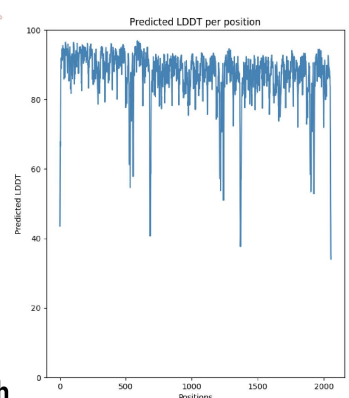
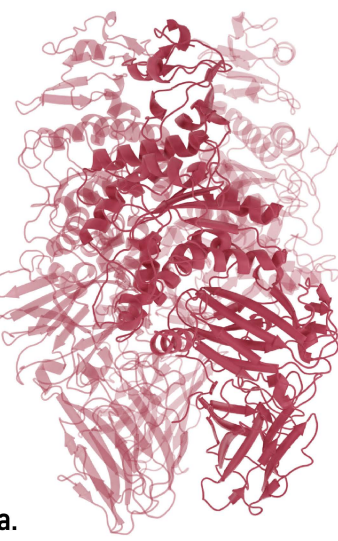
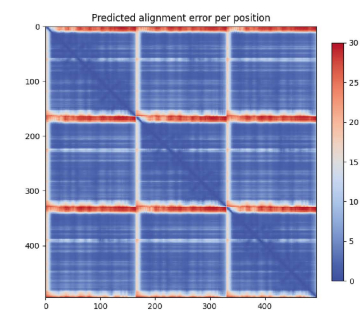
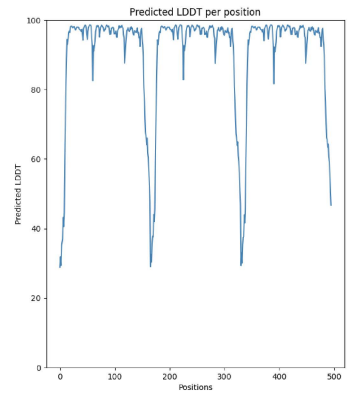
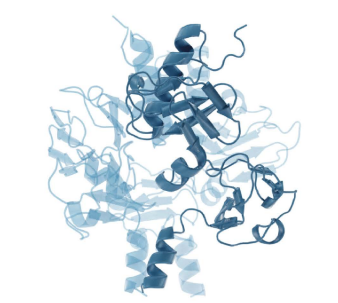
b.

c.

Name: **G7C_RBP2**

Subtype target serogroup: **4s**

Genus: *Gamaleyavirus*



a.

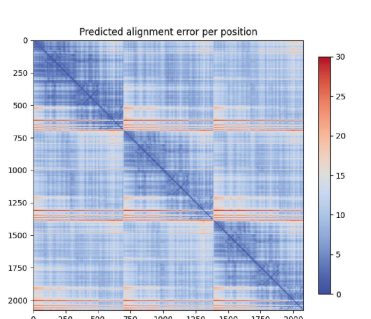
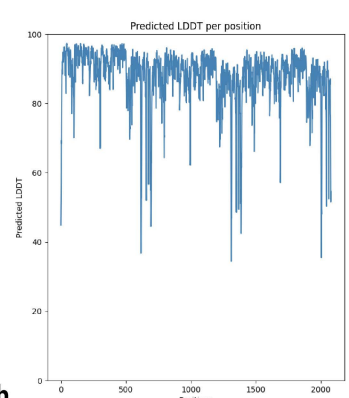
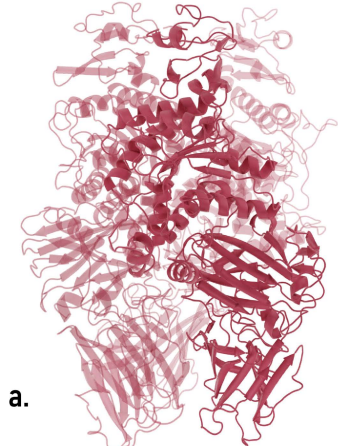
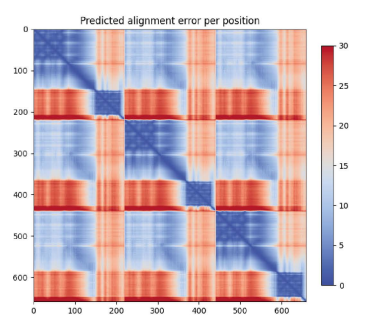
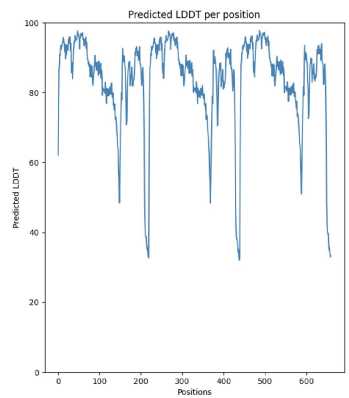
b.

c.

Name: **Penshu1_RBP**

Subtype target serogroup: **4s**

Genus: *Kayfunavirus*



a.

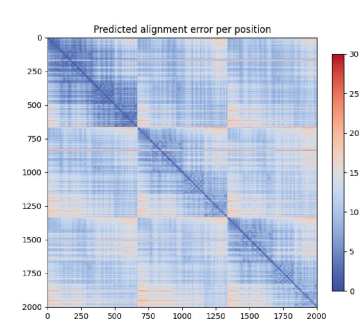
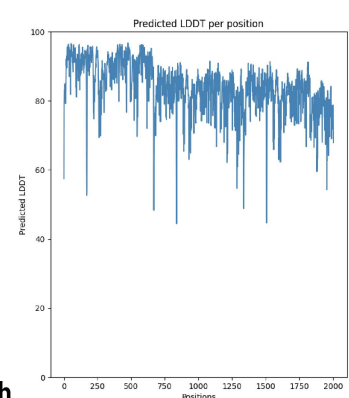
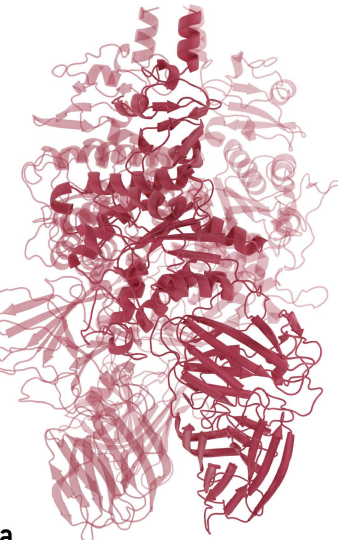
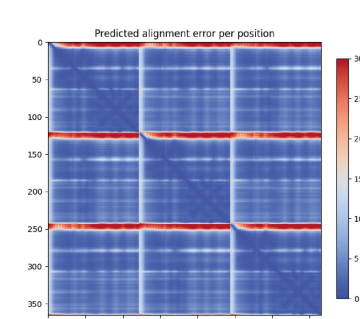
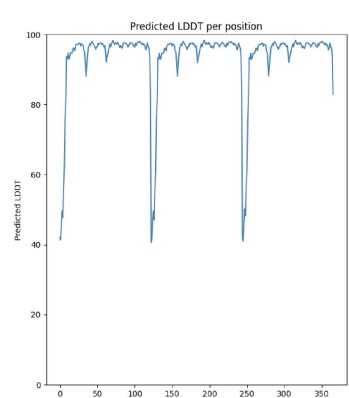
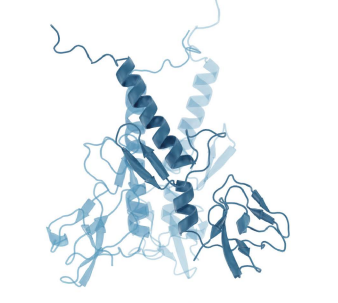
b.

c.

Name: **Schulenburg_RBP**

Subtype target serogroup: **4s**

Genus: *Kagunavirus*



a.

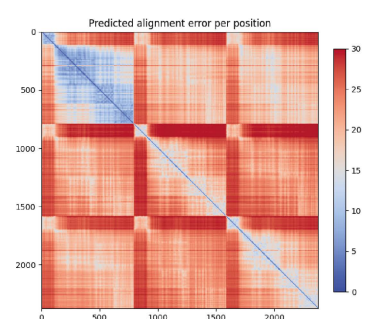
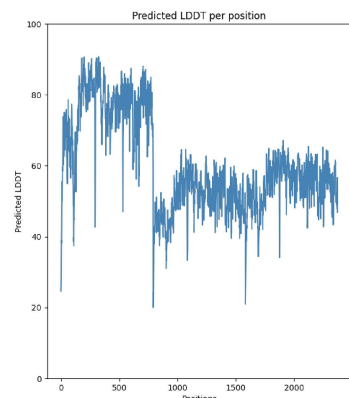
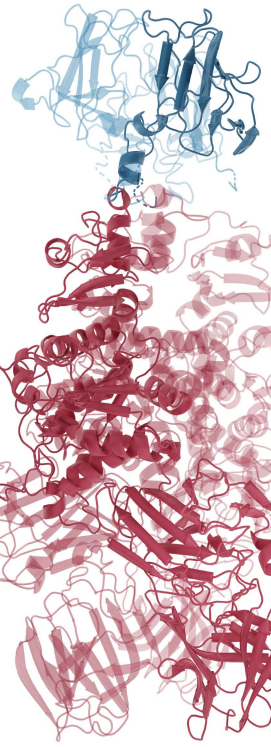
b.

c.

Name: **STEC711_Prophage_RBP**

Subtype target serogroup: **4s**

Genus: *Lederbergvirus*

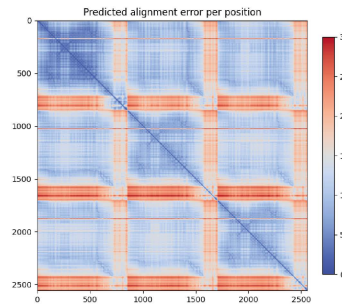
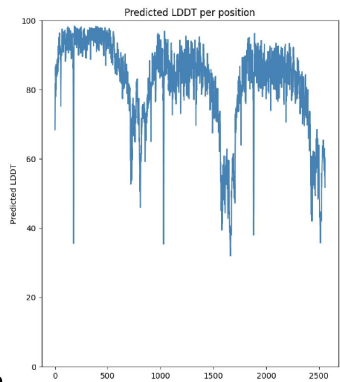
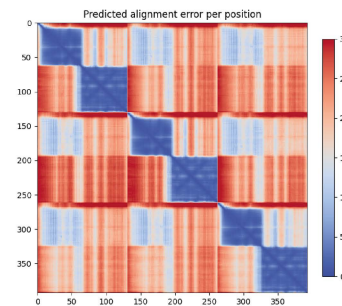
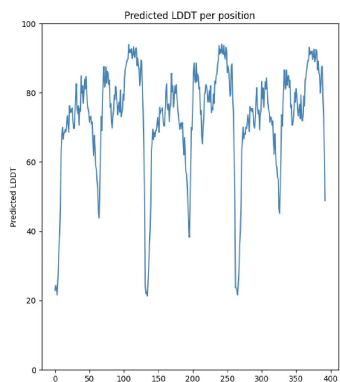
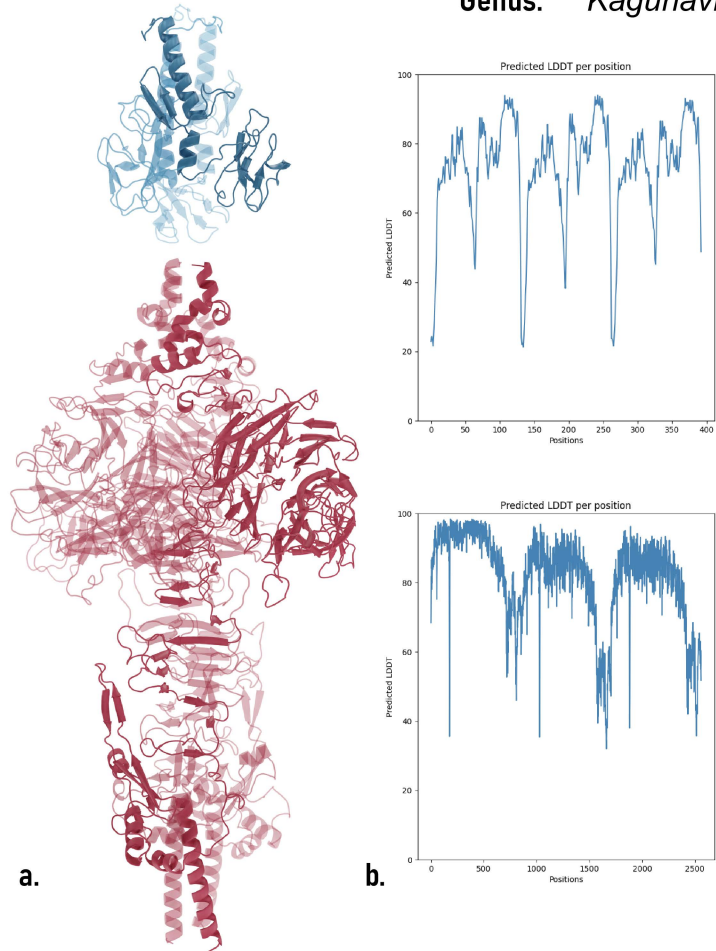


a.

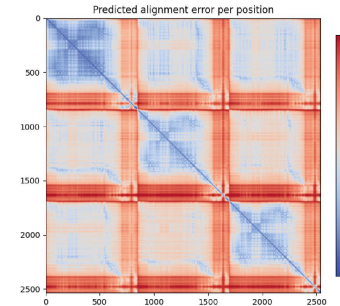
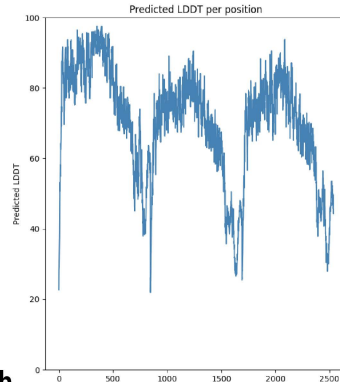
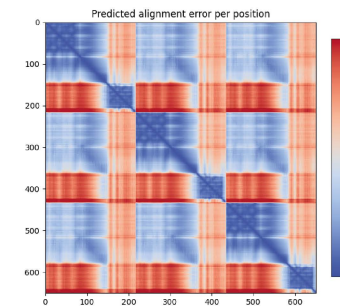
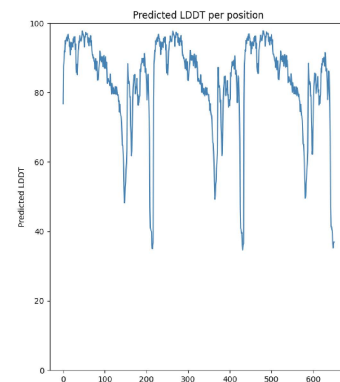
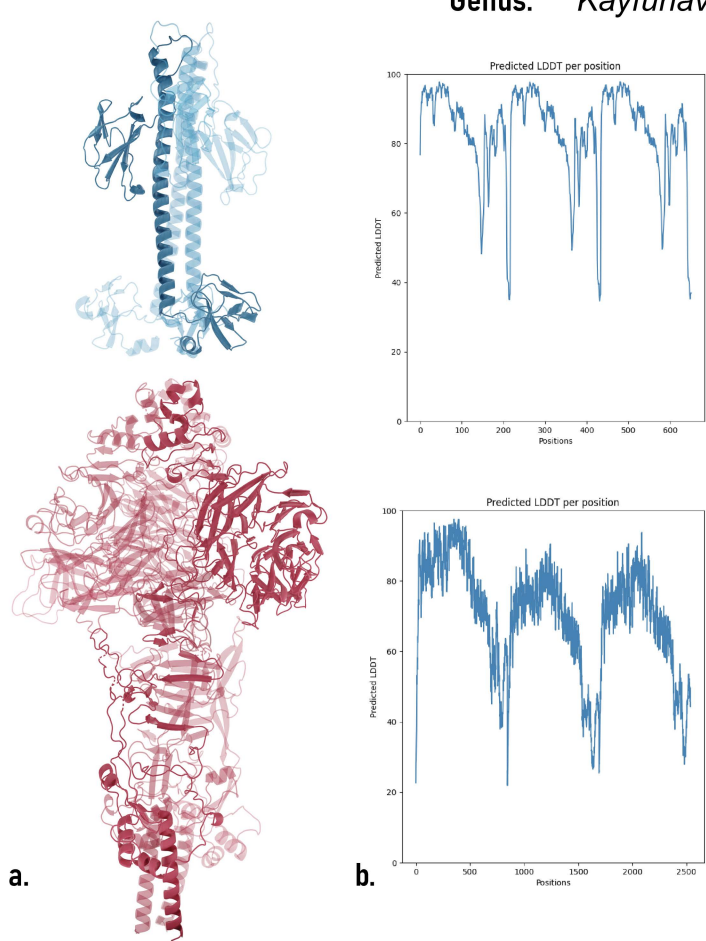
b.

c.

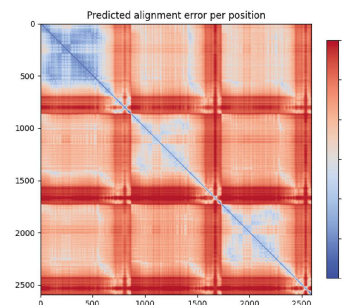
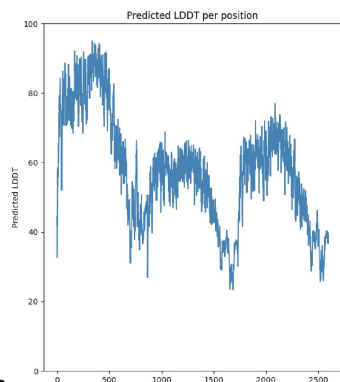
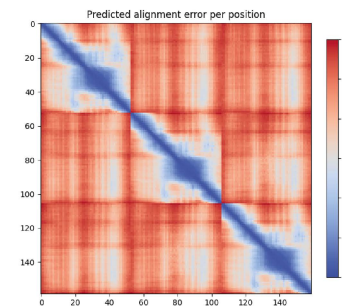
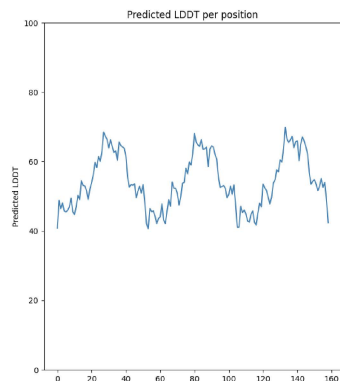
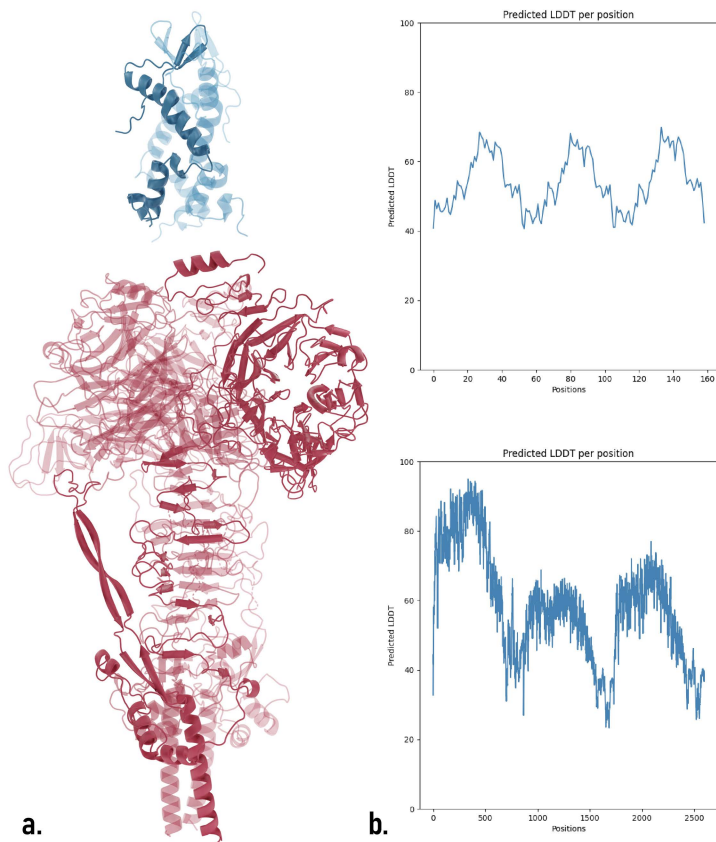
Name: **K1H_RBP**
Subtype target serogroup: **K1**
Genus: *Kagunavirus*



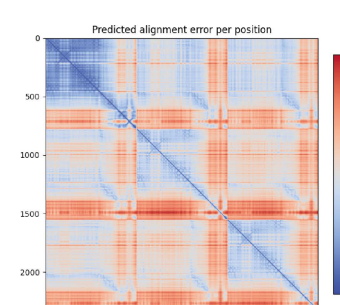
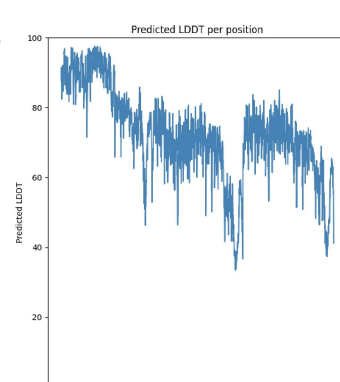
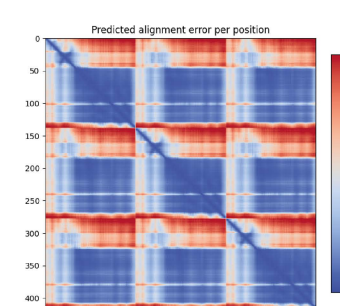
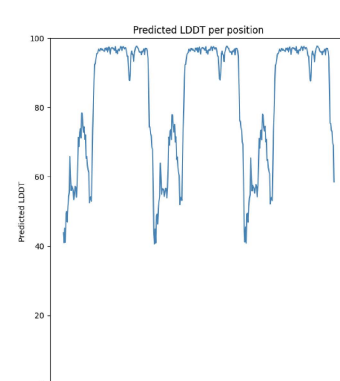
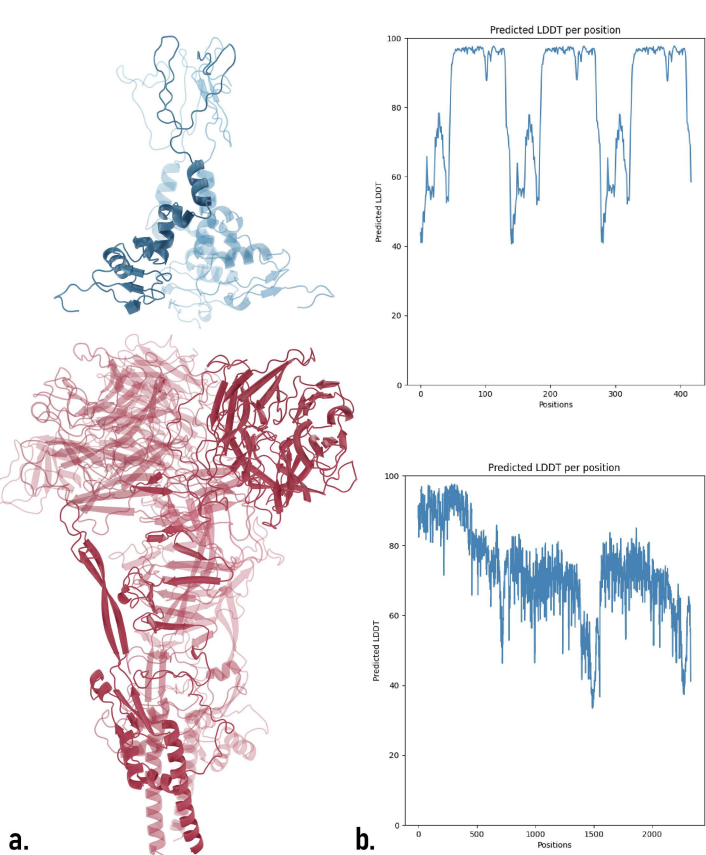
Name: **K1F_RBP**
Subtype target serogroup: **K1**
Genus: *Kayfunavirus*



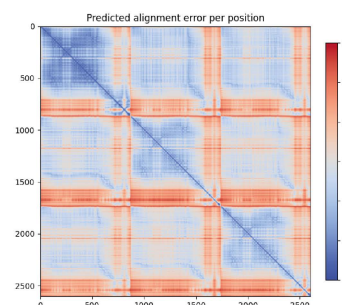
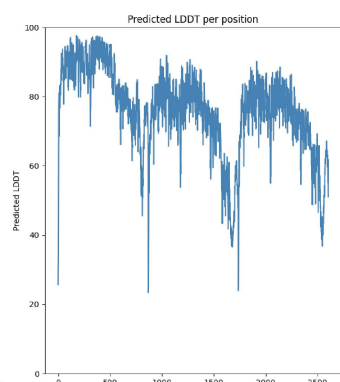
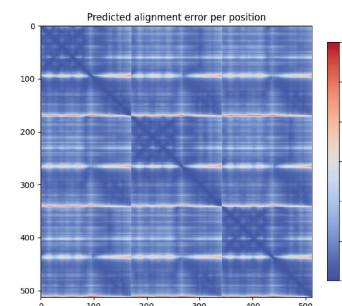
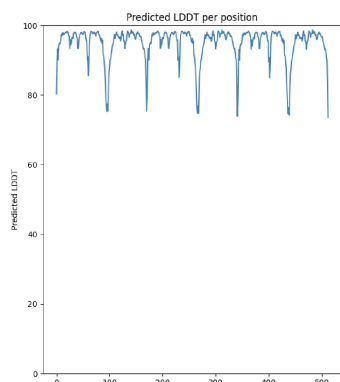
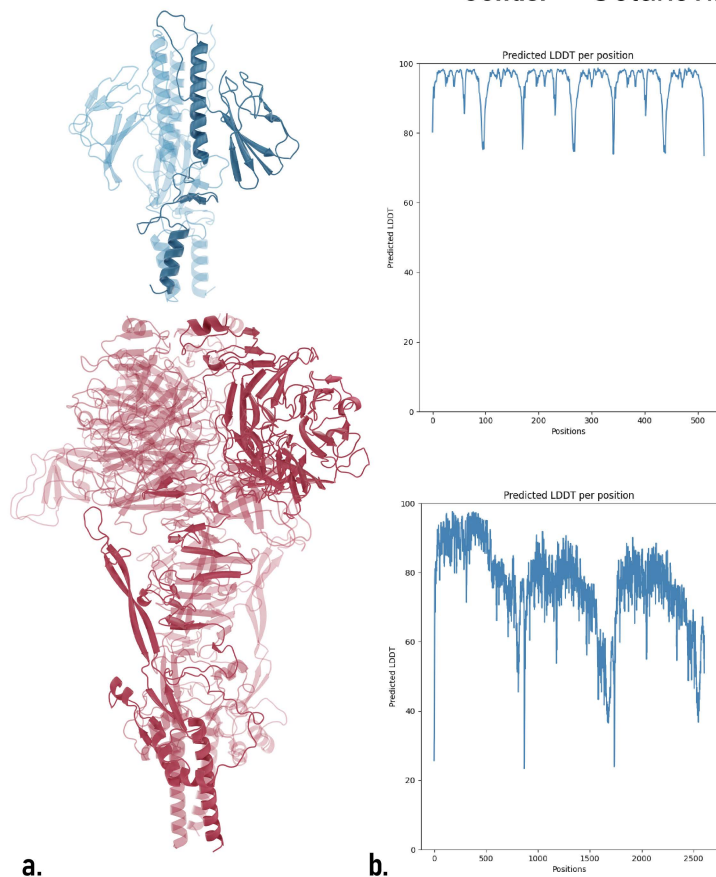
Name: **Phi92_RBP**
Subtype target serogroup: **K1**
Genus: *Justusliebigvirus*



Name: **Phiv205-1_RBP**
Subtype target serogroup: **K1**
Genus: *Lederbergvirus*



Name: **ZX5_RBP**
Subtype target serogroup: **K1**
Genus: *Uetakevirus*



Additional file 4: Figure S4: Predicted quaternary structures of the phage RBPs using AlphaFold2.

RBPs are clustered according to RBP subtype (a) Anchor domain shown in blue and RBD indicated in red, using different shades for each of the three monomers. An asterisk was used to indicate when quaternary structure predictions of RBP domains resulted in erroneous structures. (b) AlphaFold2 predicted LDDT per amino acid position; the upper graph represents the anchor domain and the lower graph the RBD when the structure was predicted separately. (c) AlphaFold2 predicted alignment error per amino acid position; the upper graph represents the anchor domain and the lower graph the RBD when the structure was predicted separately. When quaternary structure predictions of domains were unsuccessful, the tertiary structure was displayed instead.