

**Supplementary File 9. Host-viral protein binding sites mapped on the sequences of wNsp3 protein aligned with the closest homologs found in UniProt.**

**Host-virus Interaction Protein Binding Sites:**

**wNsp3\_domain5-UBC-4MM3**

QHN73794  
SP|P0C6X7|R1AB\_CVHSA  
TR|Q6UZF5|Q6UZF5\_CVHSA  
TR|Q6UZF1|Q6UZF1\_CVHSA  
TR|Q6JH48|Q6JH48\_CVHSA  
TR|Q692E6|Q692E6\_CVHSA  
TR|A0A0K1YZY7|A0A0K1YZY7\_CVHSA  
SP|P0C6W2|R1AB\_BCHK3  
SP|P0C6W6|R1AB\_BCRP3  
SP|P0C6V9|R1AB\_BC279  
TR|A0A0U1WHI4|A0A0U1WHI4\_CVHSA  
TR|A0A0U1WHG0|A0A0U1WHG0\_CVHSA  
TR|A0A166ZL34|A0A166ZL34\_9NIDO  
TR|R9QTB2|R9QTB2\_CVHSA  
TR|R9QTH2|R9QTH2\_CVHSA  
SP|P0C6U8|R1A\_CVHSA  
TR|Q6JH47|Q6JH47\_CVHSA  
TR|Q692E5|Q692E5\_CVHSA  
SP|P0C6F8|R1A\_BCHK3  
TR|A0A0K1Z0N1|A0A0K1Z0N1\_CVHSA  
SP|P0C6F5|R1A\_BC279  
SP|P0C6T7|R1A\_BCRP3  
KPHNSHEGKTFYVLPNDTLRVEAFEYHTTDPSTFLGRYMSALNHTKKWKFPQVNGLTISI 1667  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1644  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1644  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1644  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1644  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1644  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1638  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1642  
KPHAKHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQIGGTSI 1650  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1639  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1639  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1639  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1636  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1645  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1644  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1644  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1644  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1638  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1644  
KPHAKHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQIGGTSI 1650  
KPHVNHEGKTFYVLPDDTLRSEAFEYHTLDESFLGRYMSALNHTKKWKFPQVGGTISI 1642  
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QHN73794  
SP|P0C6X7|R1AB\_CVHSA  
TR|Q6UZF5|Q6UZF5\_CVHSA  
TR|Q6UZF1|Q6UZF1\_CVHSA  
TR|Q6JH48|Q6JH48\_CVHSA  
TR|Q692E6|Q692E6\_CVHSA  
TR|A0A0K1YZY7|A0A0K1YZY7\_CVHSA  
SP|P0C6W2|R1AB\_BCHK3  
SP|P0C6W6|R1AB\_BCRP3  
SP|P0C6V9|R1AB\_BC279  
TR|A0A0U1WHI4|A0A0U1WHI4\_CVHSA  
TR|A0A0U1WHG0|A0A0U1WHG0\_CVHSA  
TR|A0A166ZL34|A0A166ZL34\_9NIDO  
TR|R9QTB2|R9QTB2\_CVHSA  
TR|R9QTH2|R9QTH2\_CVHSA  
SP|P0C6U8|R1A\_CVHSA  
TR|Q6JH47|Q6JH47\_CVHSA  
TR|Q692E5|Q692E5\_CVHSA  
SP|P0C6F8|R1A\_BCHK3  
TR|A0A0K1Z0N1|A0A0K1Z0N1\_CVHSA  
SP|P0C6F5|R1A\_BC279  
SP|P0C6T7|R1A\_BCRP3  
KWADNNCYLATALTLTQQIELKFNPPALQDAYRRARAGEAANFCALILAYCNKTVGELGD 1727  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1704  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1704  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1704  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1704  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1704  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1698  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1702  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1710  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1699  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1699  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1696  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1705  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1704  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1704  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1698  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1704  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1710  
KWADNNCYLSSVLLALQQLEVKNAPALQEAYRRARAGDAANFCALILAYSNTKTVGELGD 1702  
\*\*\*\*\*:\*\*\*:\*\*\*:\*\*\*:\*\*\* \*\*\*\*\*:\*\*\*\*\*:\*\*\*\*\* \*\*\*. :\*\*\*:\*\*\*  
QHN73794  
SP|P0C6X7|R1AB\_CVHSA  
TR|Q6UZF5|Q6UZF5\_CVHSA  
TR|Q6UZF1|Q6UZF1\_CVHSA  
TR|Q6JH48|Q6JH48\_CVHSA  
TR|Q692E6|Q692E6\_CVHSA  
TR|A0A0K1YZY7|A0A0K1YZY7\_CVHSA  
SP|P0C6W2|R1AB\_BCHK3  
SP|P0C6W6|R1AB\_BCRP3  
SP|P0C6V9|R1AB\_BC279  
TR|A0A0U1WHI4|A0A0U1WHI4\_CVHSA  
TR|A0A0U1WHG0|A0A0U1WHG0\_CVHSA  
TR|A0A166ZL34|A0A166ZL34\_9NIDO  
TR|R9QTB2|R9QTB2\_CVHSA  
TR|R9QTH2|R9QTH2\_CVHSA  
SP|P0C6U8|R1A\_CVHSA  
TR|Q6JH47|Q6JH47\_CVHSA  
TR|Q692E5|Q692E5\_CVHSA  
VRETMSYLFQHANLDSCKRVLNVVCKTCGQQQTTLKGVEAVMYMGTLSEYQFKKGVSIPC 1787  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1764  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1764  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1764  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1764  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1764  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1764  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1758  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1762  
VRETMTLLQHANLES AKRVLNVVCKTCGQKSTTLTGVEAVMYMGTLSEYELKTVGTIPC 1770  
VRETMTLLQHANLEFAKRVNLVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1759  
VRETMTLLQHANLEFAKRVNLVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1759  
VRETMTLLQHANLEFAKRVNLVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1759  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1756  
VRETMAHLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1765  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1764  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1764  
VRETMTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTVGSIPC 1764

SP|P0C6F8|R1A\_BCHK3 VRETMTHTLLQHANLES AKRVLNVVCKHCGQKTTTLKGVEAVMYMGTLSTYDELKTVGSIPC 1758  
TR|A0A0K1Z0N1|A0A0K1Z0N1\_CVHSA VRETMTHTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSTYDNLKTVGSIPC 1764  
SP|P0C6F5|R1A\_BC279 VRETMTHTLLQHANLES AKRVLNVVCKTCGQKSTTLTGVEAVMYMGTLSTYEEELKTVGTIPC 1770  
SP|P0C6T7|R1A\_BCRP3 VRETMTHTLLQHANLES AKRVLNVVCKHCGQKTTTLTGVEAVMYMGTLSTYDNLKMGVSIPC 1762

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QHN73794 TCGKQATKYLQVQESSFVMSAPPAQYELKHGTFTCASEYTGNYQCCHYKHITSKETLYC 1847  
SP|P0C6X7|R1AB\_CVHSA VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1824  
TR|Q6UZF5|Q6UZF5\_CVHSA VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1824  
TR|Q6UZF1|Q6UZF1\_CVHSA VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1824  
TR|Q6JH48|Q6JH48\_CVHSA VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1824  
TR|Q692E6|Q692E6\_CVHSA VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1824  
TR|A0A0K1YZY7|A0A0K1YZY7\_CVHSA VCGRDATQYLIQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHVTAKETLYR 1824  
SP|P0C6W2|R1AB\_BCHK3 VCGRNATQYLVQVQESSFVMSAPPAEYKLQVQGAFLCANEYTGNYQCCHYTHITAKETLYR 1818  
SP|P0C6W6|R1AB\_BCRP3 VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1822  
SP|P0C6V9|R1AB\_BC279 ICGRDATQYLVQVQESSFVMSAPPAEYKLQVQGAFLCANEYTGSYQCCHYTHITVKTETLYR 1830  
TR|A0A0U1WHI4|A0A0U1WHI4\_CVHSA VCGRGATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1819  
TR|A0A0U1WHG0|A0A0U1WHG0\_CVHSA VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1819  
TR|A0A166ZL34|A0A166ZL34\_9NIDO VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYH 1819  
TR|R9QTB2|R9QTB2\_CVHSA VCGRNATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1816  
TR|R9QTH2|R9QTH2\_CVHSA VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1825  
SP|P0C6U8|R1A\_CVHSA VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1824  
TR|Q6JH47|Q6JH47\_CVHSA VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1824  
TR|Q692E5|Q692E5\_CVHSA VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1824  
SP|P0C6F8|R1A\_BCHK3 VCGRNATQYLVQVQESSFVMSAPPAEYKLQVQGAFLCANEYTGNYQCCHYTHITAKETLYR 1818  
TR|A0A0K1Z0N1|A0A0K1Z0N1\_CVHSA VCGRDATQYLIQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHVTAKETLYR 1824  
SP|P0C6F5|R1A\_BC279 ICGRDATQYLVQVQESSFVMSAPPSEYTLQVQGAFLCANEYTGSYQCCHYTHVTVKTETLYR 1830  
SP|P0C6T7|R1A\_BCRP3 VCGRDATQYLVQVQESSFVMSAPPAEYKLQVQGTFLCANEYTGNYQCCHYTHITAKETLYR 1822

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QHN73794 IDGALLTKSSEYKGPITDVFKYKENSYTTTTIKPVTYKLDGVVCTEIDPKLDNYYKKDNSYF 1907  
SP|P0C6X7|R1AB\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1884  
TR|Q6UZF5|Q6UZF5\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1884  
TR|Q6UZF1|Q6UZF1\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1884  
TR|Q6JH48|Q6JH48\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1884  
TR|Q692E6|Q692E6\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1884  
TR|A0A0K1YZY7|A0A0K1YZY7\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1884  
SP|P0C6W2|R1AB\_BCHK3 VDGHLTKMSEYKGPVTDVFKYKETSYYYTAIKPVSYKLDGVVCTEIEPKLDGYKKGNAYY 1878  
SP|P0C6W6|R1AB\_BCRP3 IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1882  
SP|P0C6V9|R1AB\_BC279 IDGAYLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1890  
TR|A0A0U1WHI4|A0A0U1WHI4\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1879  
TR|A0A0U1WHG0|A0A0U1WHG0\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1879  
TR|A0A166ZL34|A0A166ZL34\_9NIDO IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAY- 1878  
TR|R9QTB2|R9QTB2\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1876  
TR|R9QTH2|R9QTH2\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1885  
SP|P0C6U8|R1A\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1884  
TR|Q6JH47|Q6JH47\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1884  
TR|Q692E5|Q692E5\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1884  
SP|P0C6F8|R1A\_BCHK3 VDGHLTKMSEYKGPVTDVFKYKETSYYYTAIKPVSYKLDGVVCTEIEPKLDGYKKGNAYY 1878  
TR|A0A0K1Z0N1|A0A0K1Z0N1\_CVHSA IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1884  
SP|P0C6F5|R1A\_BC279 IDGAYLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1890  
SP|P0C6T7|R1A\_BCRP3 IDGAHLTKMSEYKGPVTDVFKYKETSYYYTIKPVSYKLDGVVCTEIEPKLDGYKKDNAYY 1882

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