

Online Supplementary Materials A. The learning dataset contains 204 viral proteins classified into 7 subcellular locations with respect to their host and virus-infected cells according to the experimental annotations. Both the accession numbers and sequences are given. None of the proteins has $\geq 80\%$ sequence identity to any other in the same subset (subcellular location). See the text of the paper for further explanation.

(1) 26 cytoplasm proteins

>P31352

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>P05401

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>P03418

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 GIFAGLFMNAYGAGQVMLRWGLAKSVKNIMLGHASVQAEME QVVEVYEAQKLGGEAGF
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>P09459

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 YRMKGDNAPYMTLLGSDQMSFAPA EYAQLYSFAMGMASVLDKGTGKYQFARDFMSTSF
 WRLGVEYAQAQGSINEDMAAELKLT PAARRGLAAAAQRVSEETSSIDMPTQQVGVLTGLS
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 QDNDTDWGY

>P89079

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>Q08823

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(2) 11 Endoplasmic reticulum proteins

>P04855

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 VIGTIALGVATSAQITAGIALAEAREAKRDIALIKESMTKTHKSI ELLQNAVGEQILALK
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>P21285

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>P29821

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 LNEYQDLVTFSDPKLYCDYNIVLAHYTNDVALDI SELAEFLLYEWLCNPMDVTLYYYQQ
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>Q03874

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>P09365

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 ANKWISMGSSCTVKVCPNMQTLGIGCQTTNTATFETVADSEKLAIIDVVDVSVNHKLDVT
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>P52638

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 RPRLKRRRRDTQQIEYL VHKL RPTLKD AWEDECEILQSLLLGVFGTGIASASQFLRSWLNH
 PDIIGYIVNGVGVVWQCHRNVNVT FMAWNESTYPPVDYNGRKYFLNDEGR LQTNTPEARP
 GLKRVMWFGRYFLGT VGSV KPRRIRYNKTS HDYHLEEF EASLN MTPQTSIASGHETDPI
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>P36357

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 TSESNKWIAMGSDCTIKVCPLNTQTLGIGCKTTDVSTFEELTTTEKLAIIDVVDGVNHKA
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>P04511

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 YADIAAFSVEPQLYCDYNLVLKMYDSTQELDMSELADLILNEWLCNPMIDITLYYYQQTDE
 ANKWISTGSSCTVKVCPLNTQTLGIGCLITNPDTFETVATMEKLVITDVVDGVNHKLNVT
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>P03532

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 SNKWISMGSSCTVKVCPLNTQTLGIGCQTTNVDSFEMIAENEKLAIVDVVDGINHKINLT
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>P25176

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 TNKWISTGTSTVKVCPLNTQTLGIGCLTTDTETFEVATLEKLVITDVVDGVNHKINLT
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>P04328

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 SNKWISMGTDCTVKVCPLNTQTLGIGCKTTDVNTFEIVASSEKLVITDVVNGVNHINIS
 INTCTIRNCNKLGPENVAIIQVGGPNALDITADPTTVPQVQRIMRINWKKWWQVYFTIV
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(3) 12 Extracell proteins

>Q98157

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>P15240

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 KNKKKEETKSFPI TEKGFFVVDLSEHIKNPGFNLITKVVIEKK

>Q66811

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 YVQLEARFTPQFLVLLNETIYSDNRRSNTTGKLIWKINPTVDTSMGEWAFWENKKSQKP
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>P16948

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>P15879

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 PENIMLFRGDDPAYLGTETQNTLLNSNGTINKTAFEKAKAKFLNKDRLEYGYISTSLMNV
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>O40633

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>O11458

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>P60172

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>Q00901

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>O10286

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>O73559

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FFTGENRYQNISKVCTLNFEIKCNKDSKQLTKTKNDDGIMPHSETVTLVGDCLSSVD
IYILYSNTNTQDYETDTISYHVGNVLDVDSHMPGSCDIHKLITNSKPTRF

>P41416

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(4) 6 Inner capsid proteins

>P33423

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IGANGGRWVVLTEEIARAIESKYGTKIDVYRDKVPAQIIEVERSLQKELGISREGVAEQT
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>P32934

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TGTNGRWRWVVLTEEIARAIESKYGTKIDVYRDEVPAQIIEVERSLQKELGISREGVAEQT
ERSRDLRRKEKNGT HAKAVERGGRKQKESHGDAQREGVEEEKTSEEPARIGITIEGVMS
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KKNILAYTSTGGDAKTEFLHLIDHL

>P32935

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KKNILAYTSTGGDAKTEFLHLIDHL

>Q03328

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>P33422

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 AEQTERLRDLRRKEKNGTHAKAVERGGRKQRKKAHGDAQREGVEEEKTSEEPARIGITIE
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(5) 83 Nucleus proteins

>P36719

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>Q89536

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>P36797

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>P05908

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>P36798

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 PVVYRLVWDK

>P36720

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>P27981

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>P28859

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>P17590

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>Q80923

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>P03113

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>P03114

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>P03117

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>P17382

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>P50762

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>P52367

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>P05876

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>P12513

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>P03264

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>P22420

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>P03192

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>P12448

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>P03198

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>P27221

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>Q02479

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>P03120

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>P27223

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>P09310

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>P26193

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>P08713

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>P15155

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>P30216

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>P11114

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>P03470

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>P12439

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>P07975

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>P03655

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>P04850

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>Q04464

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T S M F Y V C P P P T G A T V V Q F E E P R P C P D V A A G K N F T E G I A V I F K E N I A P Y K F T A T M Y Y K E I T
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>Q6Q1S2

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>P09258

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>Q38008

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>P09721

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>P08492

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>P09724

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>P03443

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>P03446

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>P03448

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>P12555

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>P15423

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>P25049

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>P26136

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>P03451

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>P16849

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>P21526

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>P03456

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>P03457

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>Q65999

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>P69332

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>P17504

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>P52381

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