

Figure 1. Structure similarity tree of protein related to SUD-N, SUD-M and X-domain. PDB ids with its chain, protein names and organisms are indicated on each leaf. Protein abbreviations correspond to: MacroD2=O-acetyl-ADP-ribose deacetylase; MacroD1=ADP-ribose glycohydrolase; macro=macrodomain; GDAP2=ganglioside-induced differentiation-associated protein 2; YmdB=O-acetyl-ADP-ribose deacetylase; MacroD=MacroD-type macrodomain; SAV0325=Protein-ADP-ribose hydrolase; PARP14=Poly [ADP-ribose] polymerase 14; PARP15=Poly [ADP-ribose] polymerase 15; PARP9=Poly [ADP-ribose] polymerase 9; ARTD8=ADP-ribosyl-transferase diphtheria toxin-like 8; H2A=histone H2A; AF_1521=ADP-ribosylglutamate; TTHA0132=hypothetical protein; OSH55=Serine hydrolase; ADRP=ADP-ribose-1"-monophosphatase; PARG=Poly ADP-ribose glycohydrolase; DarG=Appr-1-p processing domain; BT1257=conserved hypothetical protein; Poa1p=ADP-ribose 1"-phosphate phosphatase. Organisms are: Hsapiens=*Homo sapiens*; Tbrucei=*Tripanosoma brucei*; Tcruzi=*Tripanosoma cruzi*; Ecoli=*Escherichia coli*; Oiheyensis=*Oceanobacillus iheyensis*; Saureus=*Staphylococcus aureus*; Afulgidus=*Archaeoglobus fulgidus*; Tthermophilus=*Thermus thermophilus*; Dradiodurans=*Deinococcus radiodurans*; Taquaticus=*Thermus aquaticus*; Mtuberculosis=*Mycobacterium tuberculosis*; Bthetaitaomicron=*Bacteroides thetaiotamicron*; Scerevisiae=*Saccharomyces cerevisiae*; SARS-CoV=Severe acute respiratory syndrome-related coronavirus; MERS-CoV=Middle East respiratory syndrome-related coronavirus; Bat-CoV HKU4=Bat coronavirus HKU4; HCoV-NL63=Human coronavirus NL63; HCoV-229E=Human coronavirus 229E; FCoV=Feline coronavirus; IBV=Infectious bronchitis virus; CHIKV=Chikungunya virus; SINV= Sindbis virus; GETV=Getah virus; MAYV=Mayaro virus; VEEV=Venezuelan equine encephalitis virus.

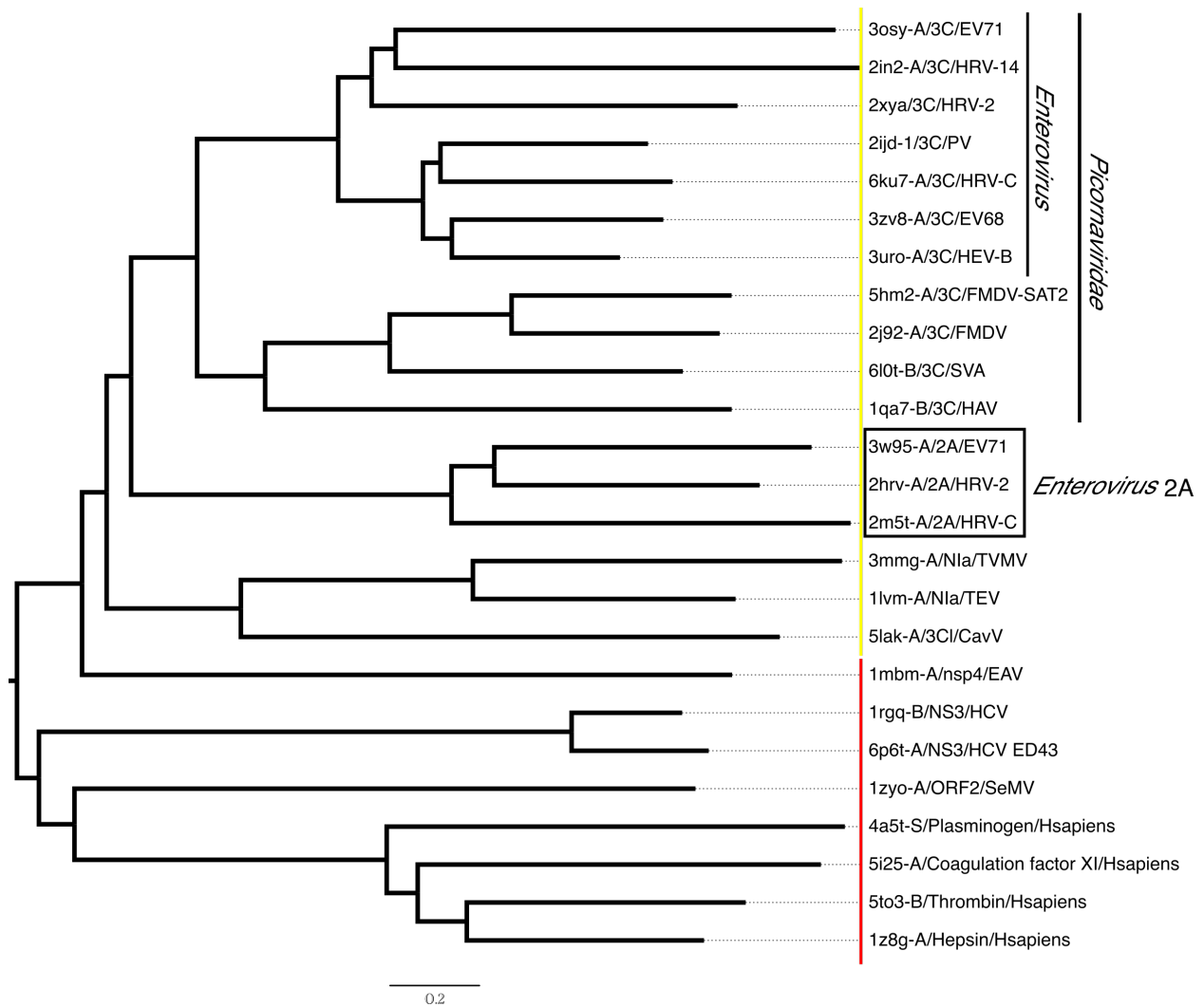


Figure 2. Structure similarity tree of proteins related to 3C and 2A proteases. PDB ids with its chain, protein names and organisms are indicated on each leaf. The yellow bar denotes cysteine proteases whereas the red line indicates serine proteases. Organisms are: Hsapiens=*Homo sapiens*; EV71=*Enterovirus 71*; HRV-14=*Human rhinovirus 14*; HRV-2=*Human rhinovirus 2*; PV=*Polio virus*; HRV-C=*Human rhinovirus C*; EV68=*Enterovirus 68*; HEV-B=*Human enterovirus B*; FMDV=*Foot and mouth disease virus*; SVA=*Senecavirus A*; HAV=*Hepatitis A virus*; TVMV=*Tobacco vein mottling virus*; TEV=*Tobacco etch virus*; CavV=*Cavally virus*; EAV=*Equine arteritis virus*; HCV=*Hepatitis C virus*; SeMV=*Sesbania mosaic virus*.