

Make a Dengue Virus Structure!

To build the dengue virus, cut out the protein structure below and fold along the dotted lines. Then tape or glue the flaps into place to form an icosahedron. This paper model of PDB entry 1k4r shows the virus magnified by 1,500,000 times. The RNA genome, which contains 10,649 nucleotides, can be modeled using a piece of string approximately 5.4 meters long and placed inside of the structure.

This image was created from the experimentally-determined coordinates available in the PDB archive. For more information, please see the RCSB PDB's Molecule of the Month feature on dengue virus at http://dx.doi.org/10.2210/rcsb_pdb/mom_2008_7

PDB ID: 1k4r. Kuhn, R.J., Zhang, W., Rossmann, M.G., Pletnev, S.V., Corver, J., Lenches, E., Jones, C.T., Mukhopadhyay, S., Chipman, P.R., Strauss, E.G., Baker, T.S., Strauss, J.H. (2002) Structure of dengue virus: implications for flavivirus organization, maturation, and fusion. *Cell* 108:717-725

