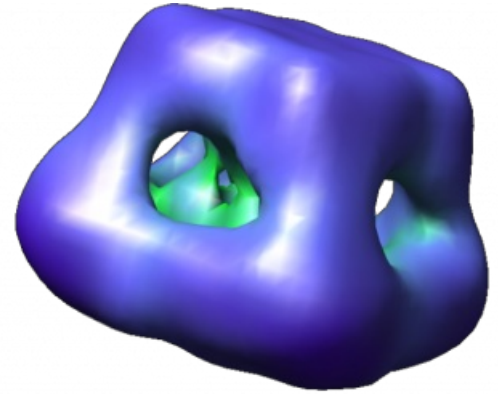


Kv4.2 Potassium Voltage-Gated Ion Channel





Below is a **stack** (257 MB) of 8,314 images (**MRC/CCP4 format**) of Kv4.2 potassium voltage-gated ion channel [1]. The images were recorded with a Philips CM12 electron microscope at an acceleration voltage of 120 keV, at 1.5 μm underfocus and a magnification of 60,000x. Micrographs were scanned with a step size of 28 μm , giving a pixel size of 4.67 \AA on the specimen. **Alignment parameters** determined by **Frealign** for each particle in the stack can also be found below, as well as a **reconstruction** of Kv4.2 (also **MRC/CCP4 format**; a B-factor of -5000.0 \AA^2 and 28.0 \AA low-pass filter radius were applied using the program **bfactor** to sharpen the density) and a **script** to calculate a reconstruction using **Frealign**.

Please note that the handedness of the reconstruction calculated using the attached parameter files will be **WRONG**. The reconstruction must be mirrored (for example, with the MRC program label) to have the correct handedness. The reconstruction attached below has already been corrected.



References

1. Kim, LA, Furst J, Gutierrez D, Butler MH, Xu S, Goldstein SA, Grigorieff N. 2004. **Three-dimensional structure of I(to): Kv4.2-KCHIP2 ion channels by electron microscopy at 21 Angstrom resolution**. *Neuron*. 41:513-9.

 kv42.par.gz - Frealign parameters file	197.23 KB
 kv42_reconstruction_script.tar.gz - Script to calculate a 3D reconstruction	1.27 KB
 kv42.mrc.gz - 3D reconstruction	1.77 MB
 kv42_stack.mrc.gz - Particles image stack	79.74 MB

Source URL: <http://grigoriefflab.janelia.org/kv42>