

Supplemental Data

Single Copies of Sec61 and TRAP Associate with a Nontranslating Mammalian Ribosome

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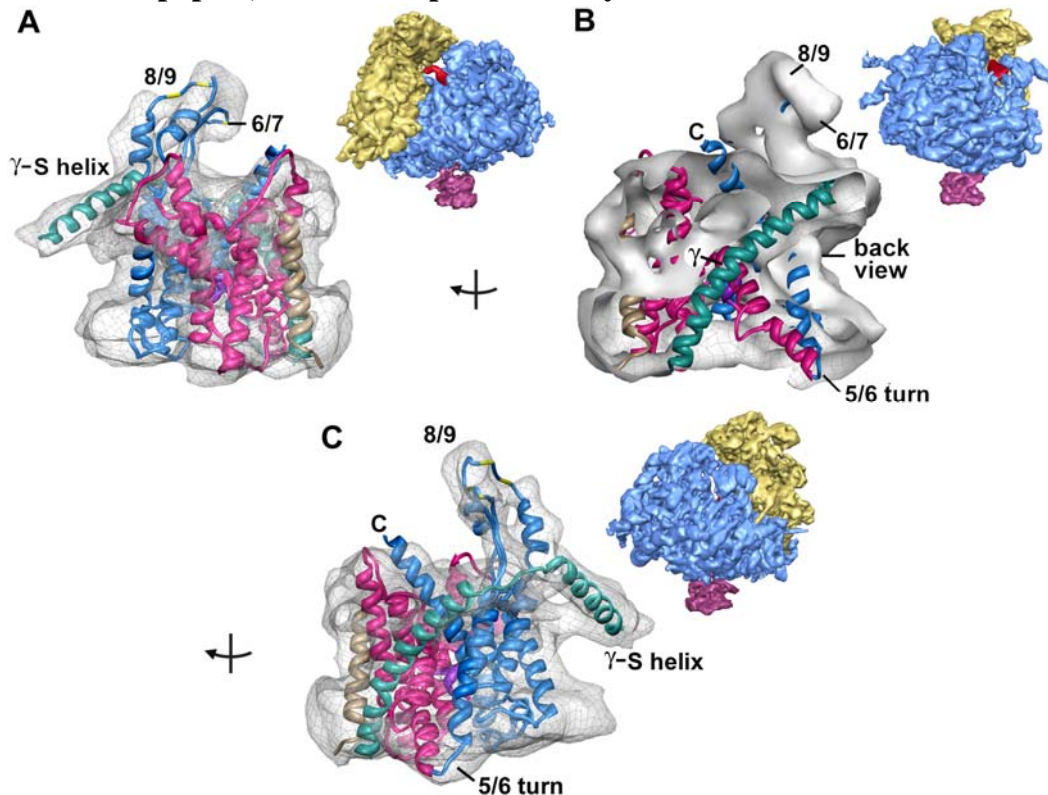


Figure S1. Overviews of the 6/7 and 8/9 Loops, As Well As the Sec61 γ Subunit

A. The docked SecY model is shown within a semi-transparent mini-map which contains the Sec61 density. The orientation is

shown by the icon view of the entire complex (upper right). The surface helix of SecE/Sec61 γ and the cytoplasmic loops are indicated.

B. The docking of the SecE/Sec61 γ TM is shown within a nearly solid density map. The structure has been rotated $\sim 110^\circ$ from panel B and a cut-plane has removed the outer surface of the map.

C. The docked model and map have been rotated by $\sim 50^\circ$ relative to panel C, which brings the 5/6 turn and the surface helix into view.

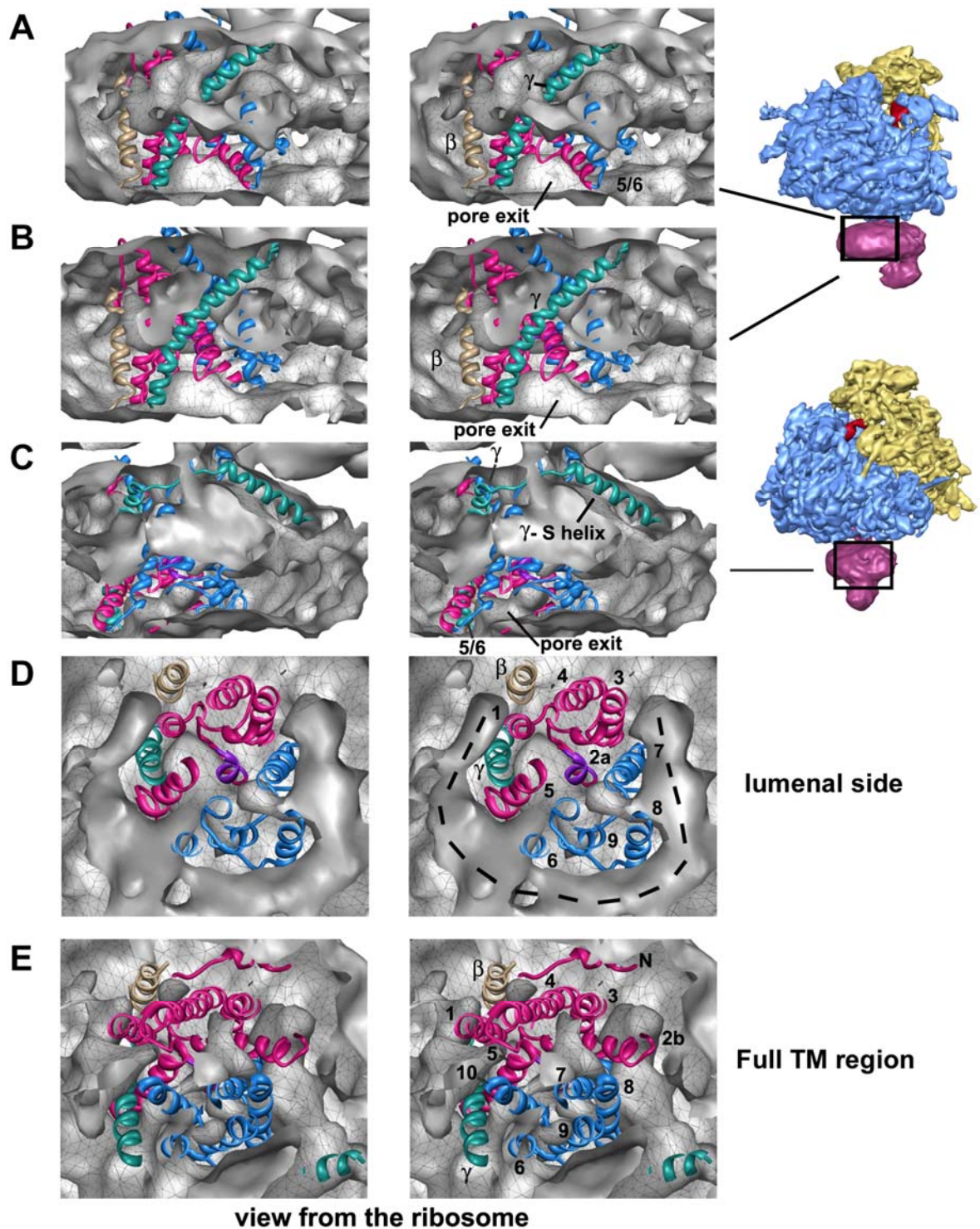


Figure S2. Stereo Views Reveal the Fit of SecY Crystal Structure within the Sec61 Region of the Full Map of the Channel

The stereo images were generated with Chimera (Goddard et al., 2005) using the “left eye” and “right eye” options. Stereo-glasses are required to see the 3D effect, though crossed eyes may

work. The electron density map of the channel region has been rendered at a single threshold in light grey at 11Å resolution. A second copy of the map has been rendered as a darker hexagonal mesh that covers the inside surface of the thresholded volume. Higher density, internal regions are present when the hexagonal mesh is visible in cross-sections. Grey features without visible mesh enclose low density features within the map and are topologically equivalent to the outside of the map for this particular threshold.

A. A cross-section shows the TM of Sec61 γ and the 5/6 turn within the channel. The box in the icon view on the right shows the direction of view within the RCC for panels A and B. The pore exit is marked.

B. A second cross-section is shown in the same orientation as panel A but cut further into the channel.

C. A cross-section is shown of the surface helix of Sec61 γ . The orientation of this view is indicated by the boxed region in the icon view of the RCC on the right.

D. A cross-section is shown of the luminal side of the channel as viewed from the ribosome. The α -helices of Sec61 are labeled in the standard way based on SecY (van den Berg et al., 2004). A portion of the low density feature which nearly encircles Sec61 is marked by a dashed line.

E. A cross-section of the full TM region of Sec61 is shown within the map in a similar orientation as panel D.

Supplemental References

Goddard, T.D., Huang, C.C. and Ferrin, T.E. (2005). Software extensions to UCSF chimera for interactive visualization of large molecular assemblies. *Structure (Camb)*. 13, 473-482.

van den Berg, B., Clemons, W.M. Jr., Collinson, I., Modis, Y., Hartmann, E., Harrison, S.C. and Rapoport, T.A. (2004). Crystal structure of a protein-conducting channel. *Nature* 427, 36-44.