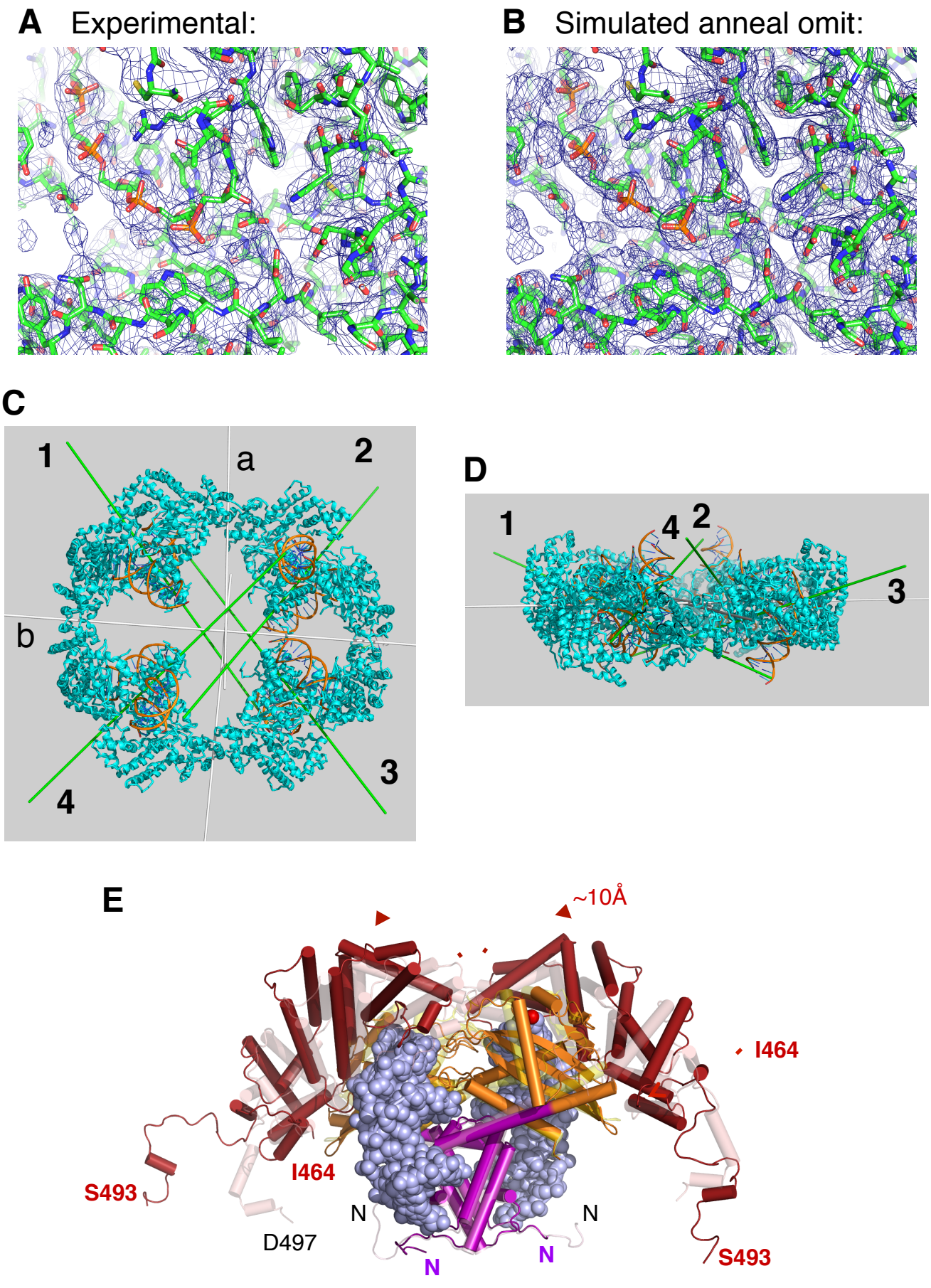
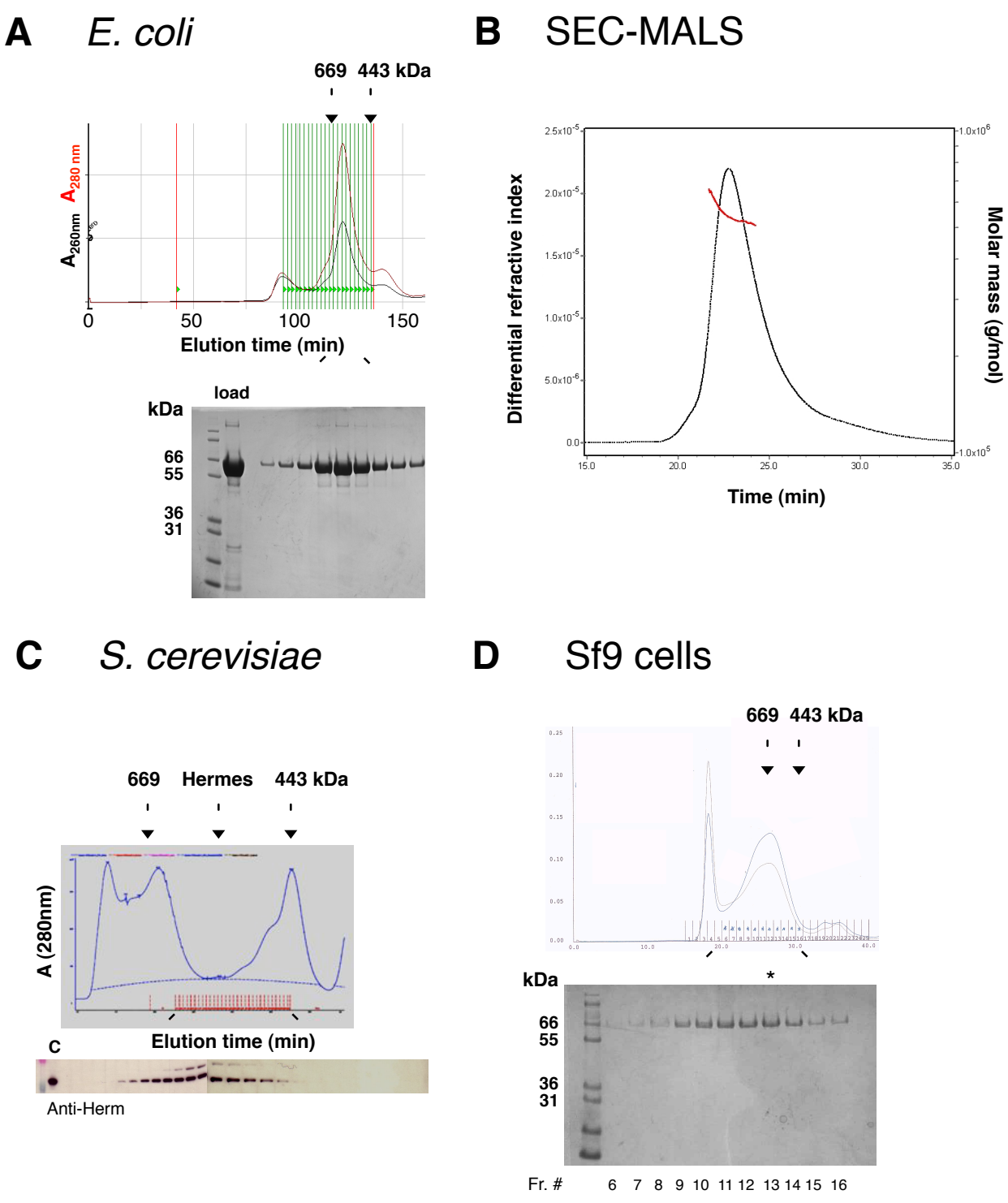
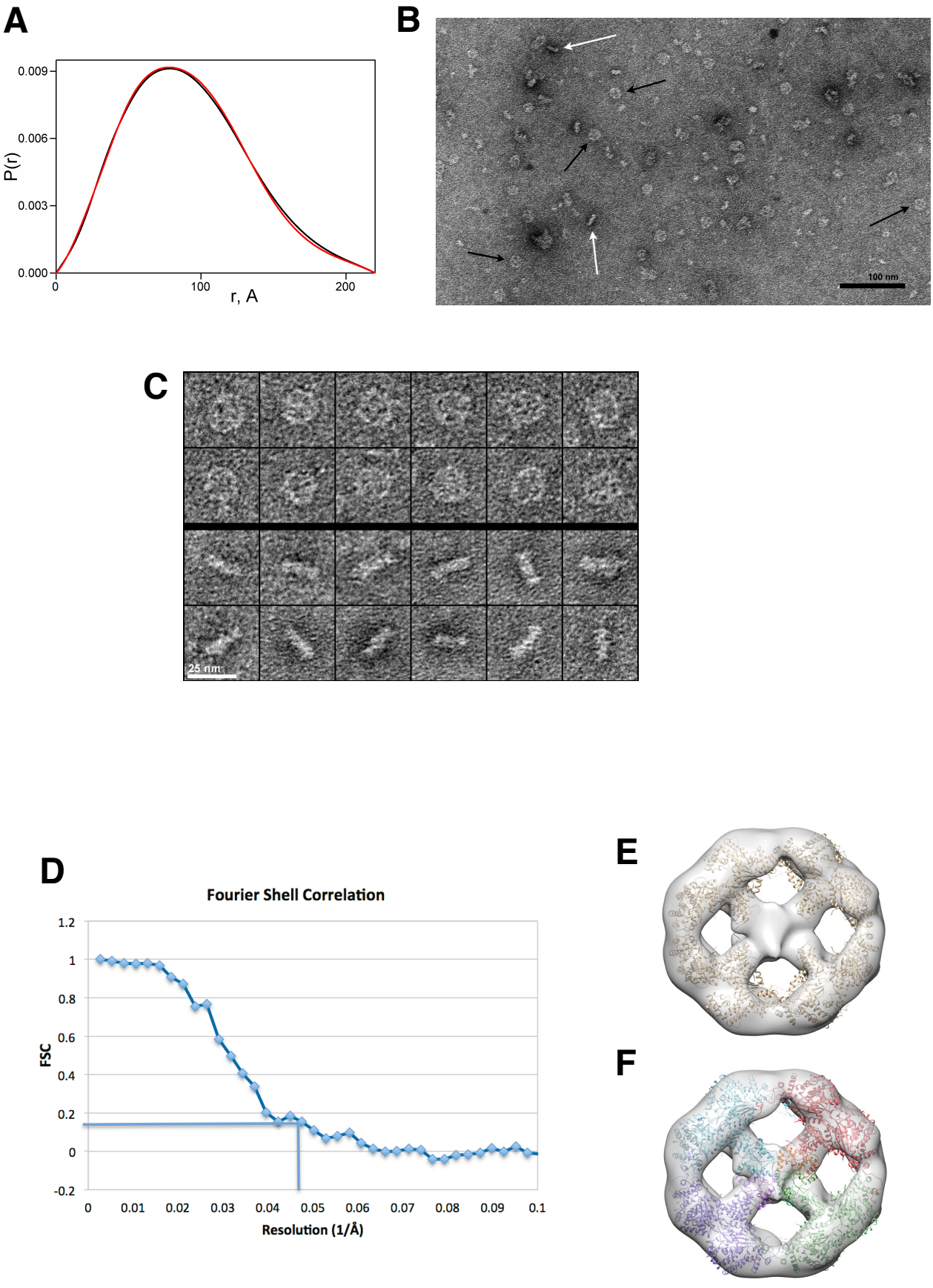
Supplemental Figure 1



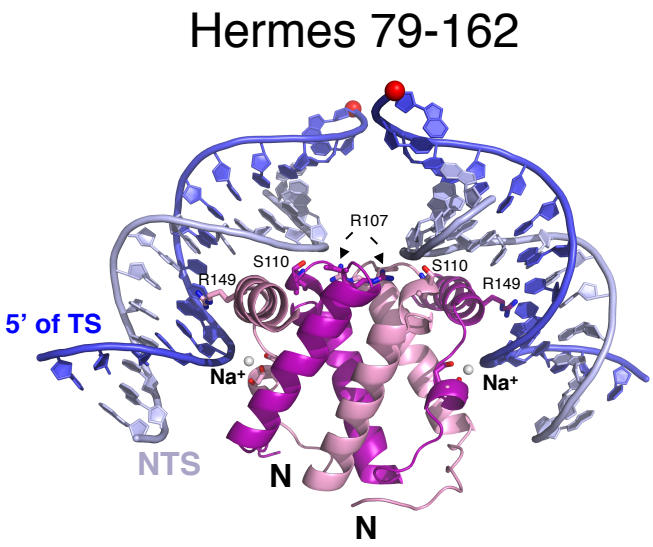
Supplemental Figure 2

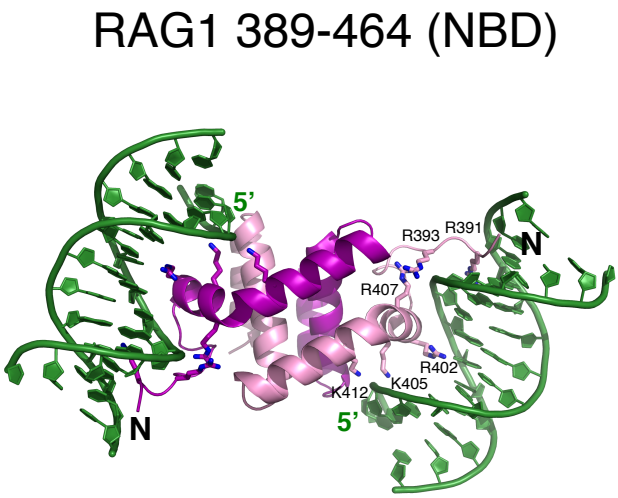


Supplemental Figure 3

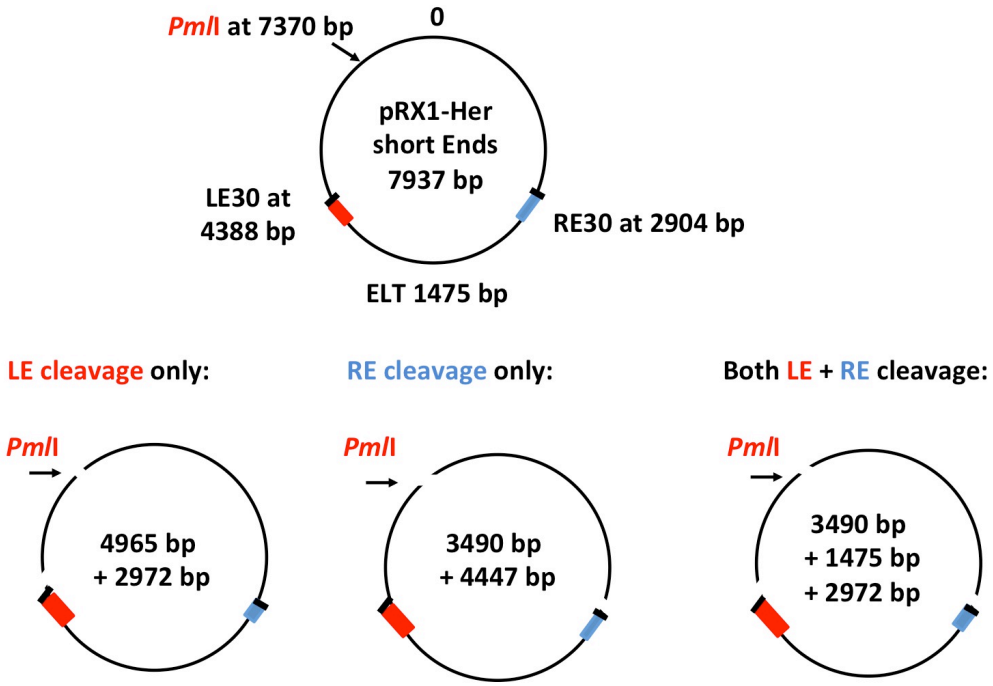


Supplemental Figure 4



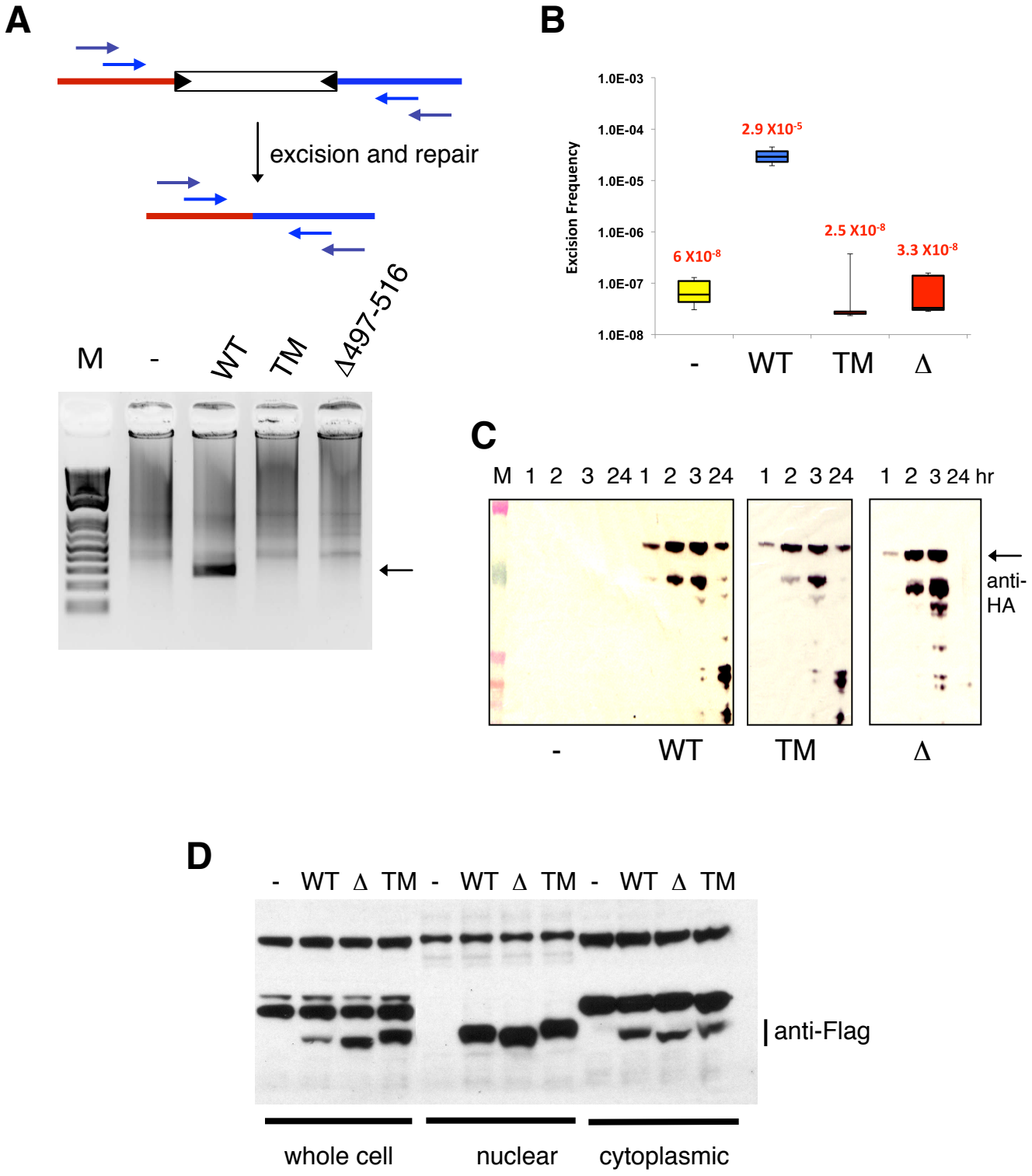


Supplemental Figure 5



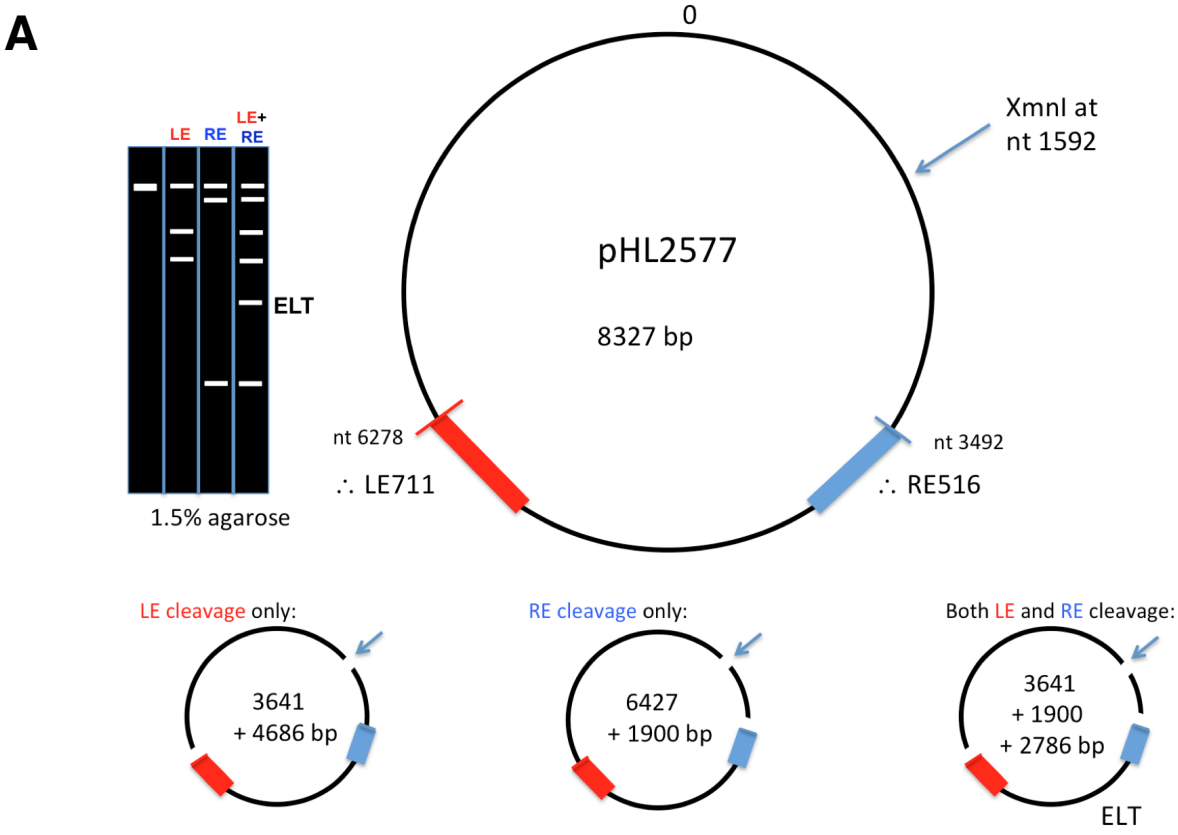
Supplemental Figure 6

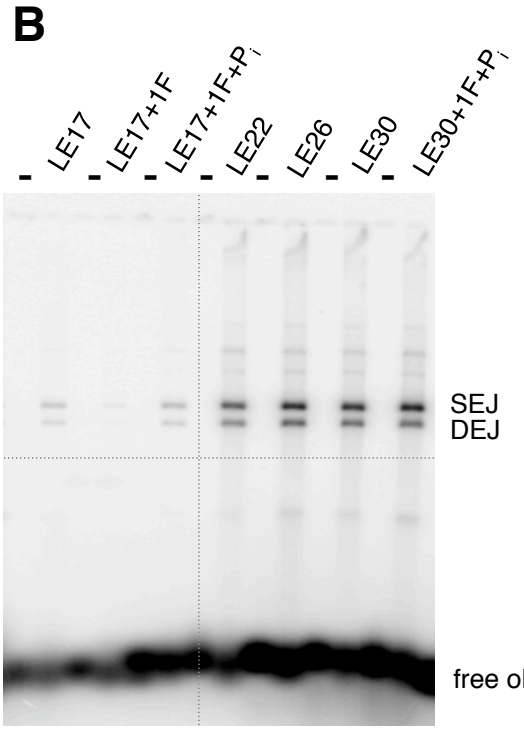
Click here to download Supplemental Figure: suppl_figure6.pdf

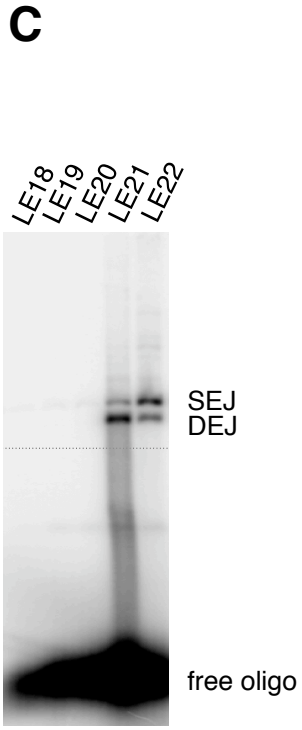


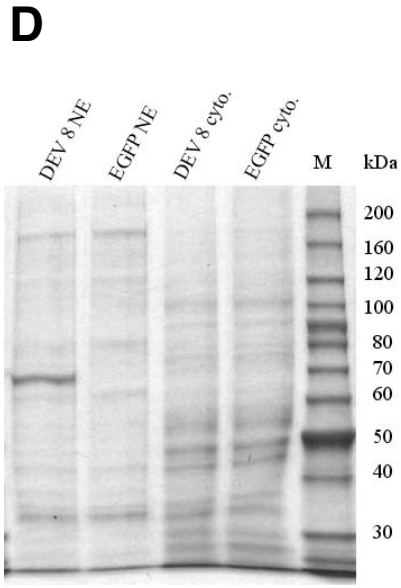
Supplemental Figure 7

Click here to download Supplemental Figure: suppl_figure7.pdf









DNA transposons are pieces of DNA that use self-encoded enzymes to move from one genomic location to another. This movement affects genome organization and may be evolutionarily important. The investigation of the structure and properties of a eukaryotic *hAT* transposase bound to transposon ends reveals an unusual octameric ring of subunits. This subunit overabundance provides multiple DNA binding domains to bind repeated sequences within transposon ends. This study also suggests how the transposase might bind to longer ends and its insertion site, and why this family of transposons necessarily have asymmetric ends.

Cell Press Conflict of Interest Form

If submitting materials via Editorial Manager, please complete this form electronically and upload the file with your final submission.

Otherwise, please return the form as an email attachment to the copyeditor handling your manuscript.

Cell Press requires all authors to disclose any financial interest that might be construed to influence the results or interpretation of their manuscript.

As a guideline, any affiliation associated with a payment or financial benefit exceeding $10,000 p.a. or 5% ownership of a company or research funding by a company with related interests would constitute a financial interest that must be declared. This policy applies to all submitted research manuscripts and review material.

Examples of statement language include: AUTHOR is an employee and shareholder of COMPANY; AUTHOR is a founder of COMPANY and a member of its scientific advisory board. This work was supported in part by a grant from COMPANY.

Please disclose any such interest below on behalf of all authors of this manuscript.

Please check one of the following:

☒ None of the authors of this manuscript have a financial interest related to this work.

☐ Please print the following disclosure statement in the Acknowledgments section:

Please provide the following information:

☒ Please check this box to indicate that you have asked every author of this work to declare any conflicts of interest. Your answers on this form are on behalf of every author of this work.

Manuscript #: CELL-D-14-00282R1

Title: Structural Basis for Transposon End Recognition by Hermes, an Octameric hAT DNA Transposase from Musca domestica

Author list: Alison B. Hickman, Hosam E. Ewis, Xianghong Li, Joshua A. Knapp, Thomas Laver, Anna-Louise Doss, Gökhan Tolun, Alasdair C. Steven, Alexander Grishaev, Ad Bax, Peter W. Atkinson, Nancy L. Craig, and Fred Dyda

Your name: Fred Dyda

Date: 4/28/14

Cell Press, 600 Technology Square, 5th floor, Cambridge, MA 02139, USA