

## **A ligand-binding pocket in the dengue virus envelope glycoprotein**

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### **Abstract**

Dengue virus is an emerging global health threat. Its major envelope glycoprotein, E, mediates viral attachment and entry by membrane fusion. A crystal structure of the soluble ectodomain of E from dengue virus type 2 reveals a hydrophobic pocket lined by residues that influence the pH threshold for fusion. The pocket, which accepts a hydrophobic ligand, opens and closes through a conformational shift in a  $\beta$ -hairpin at the interface between two domains. These features point to a structural pathway for the fusion-activating transition and suggest a strategy for finding small-molecule inhibitors of dengue and other flaviviruses.

### **Link to full-text article:**

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