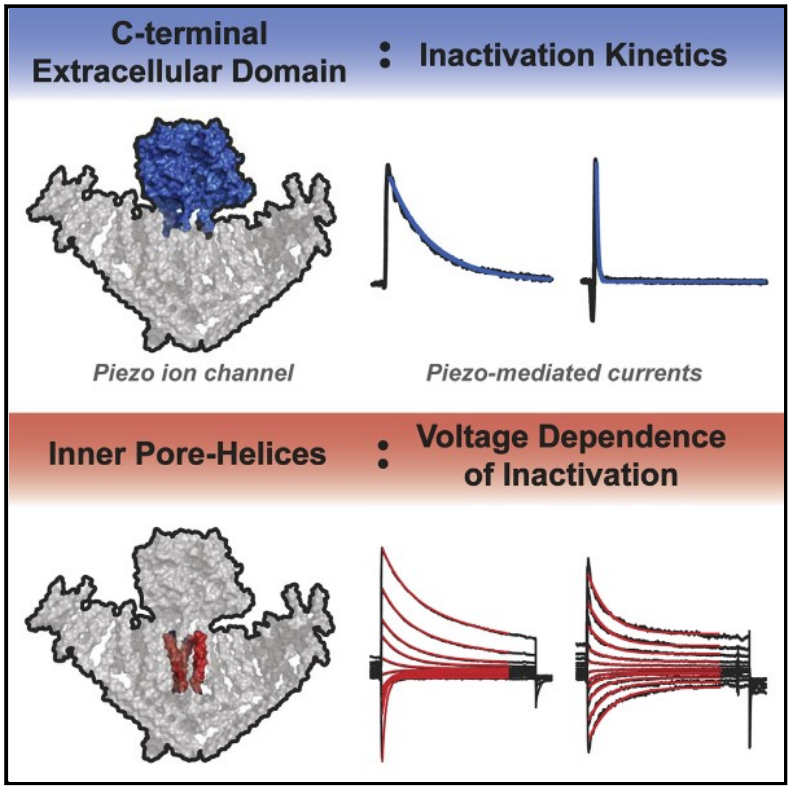
Report

Cell Reports

# Inactivation of Mechanically Activated Piezo1 Ion Channels Is Determined by the C-Terminal Extracellular Domain and the Inner Pore Helix

## Graphical Abstract




## Authors

Jason Wu, Michael Young, Amanda H. Lewis, Ashley N. Martfeld, Breanna Kalmeta, Jörg Grandl

## Correspondence

grandl@neuro.duke.edu

## In Brief

Wu et al. examine how the properties of inactivation are influenced in mechanically activated Piezo ion channels. They identify two structural domains, the C-terminal extracellular domain and the inner pore helix, that correspond with the kinetics and voltage dependence of inactivation, respectively.

## Highlights

- Inactivation kinetics of Piezo ion channels are continuously modulated by voltage
- The C-terminal extracellular domain confers kinetics of inactivation
- A single charged residue in the pore helix confers voltage sensitivity
- Substituted cysteine modification in the upper pore helix is voltage dependent

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