Shootin1–cortactin interaction mediates signal–force transduction for axon outgrowth

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Cortactin directly interacts with shootin1 in axonal growth cones.


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Cortactin interacts with F-actin retrograde flow.

Cortactin mediates the linkage between F-actin and shootin1 as a clutch molecule.

Cortactin is involved in shootin1-mediated and L1-CAM–dependent axon outgrowth.

Pak1-mediated shootin1 phosphorylation enhances shootin1–cortactin interaction.
Cortactin is involved in netrin-1–induced F-actin–substrate coupling and promotion of traction force for axon outgrowth.

Shootin1–cortactin interaction mediates netrin-1–induced generation of traction force and axon outgrowth.