

SUPPLEMENTARY FIGURE LEGENDS

Sup. Fig. 1. CTNND1 phospho-proteome is suppressible by mTOR antagonist, Torin1. Phospho-proteome is upregulated TSC patients relative to controls. Astrocyte cultures were treated with Torin1 (or not), and immunostained for CTNND1 pS268. Image acquisition times were dramatically reduced for mutant cultures (240 ms vs 600 ms). Scale bar, 100 μ m.

Sup. Fig. 2. Loss of P-S6 expression marked mTOR inhibition by rapamycin and Torin1.

a, 20 nM rapamycin (based on reference) was used to treat samples at different time points. DMSO alone was the control. The largest differences in P-S6 expression for the rapamycin group were 60 mins. Various time points and Torin1 dosages were tested: 250nM Torin1 for 30 mins; 20nM rapamycin for 1 hour; 250 nM Torin1 for 30 minutes. **b** and **c** shows summarized data from SILAC. **b**, Genomatix GePS network analysis and Generanker pathway analysis of phospho-proteins. **c**, The top ten biological processes including E-cadherin junction assembly/organization enriched as phospho-proteins are given with respective p-values.

Sup. Fig. 3. Co-localization of pCTNND1 and E-Cadherin in the membrane of patient astrocyte.

Overconfluent (beginning to form foci) cells were passaged once and then allowed again to become confluent. Cultures were then immunolabeled for E-cadherin.