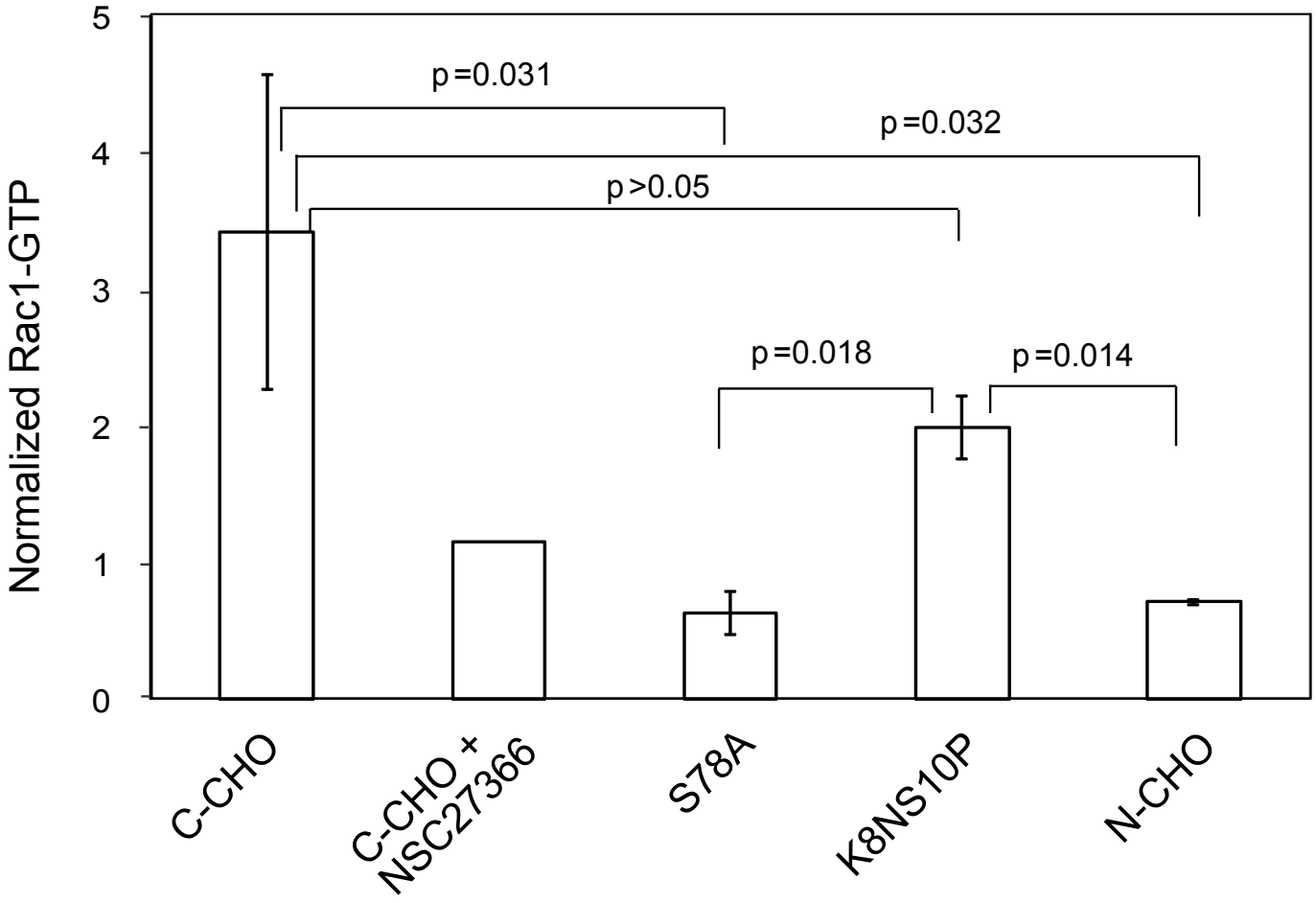

Fig. S1. Normalized Rac1-GTP in a confluent cell monolayer measured 45 minutes after activating intercellular junctions with 1.8 mM Ca^{2+}. The cadherin subtype expressed on the CHO cell is indicated below each bar. The control was obtained by measuring Rac1-GTP levels, in the presence of the Rac inhibitor NSC23766. Cadherin surface expression levels were similar, and values are given in the main text.

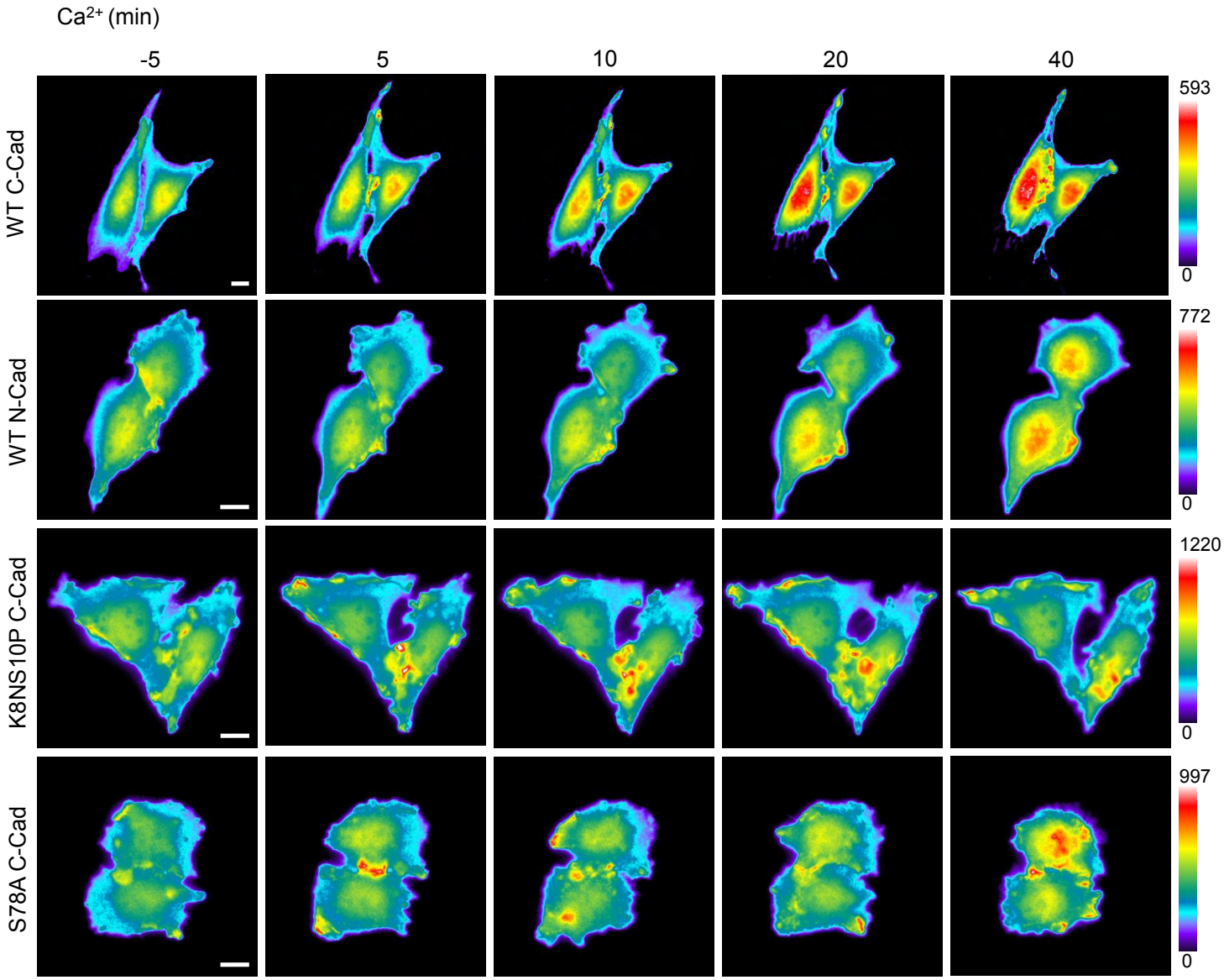

Fig. S2. YFP-PBD-PAK localization following intercellular junction activation by calcium addition. Representative time-lapse fluorescence image series of YFP-PBD-PAK, before and after calcium stimulation, in CHO cells that express C-cadherin, N-cadherin, or C-cadherin mutations (K8NS10P, S78A). Images represent at least three series for each condition. Calcium was added at $t = 0$ minutes. Scale bars: 10 μm.

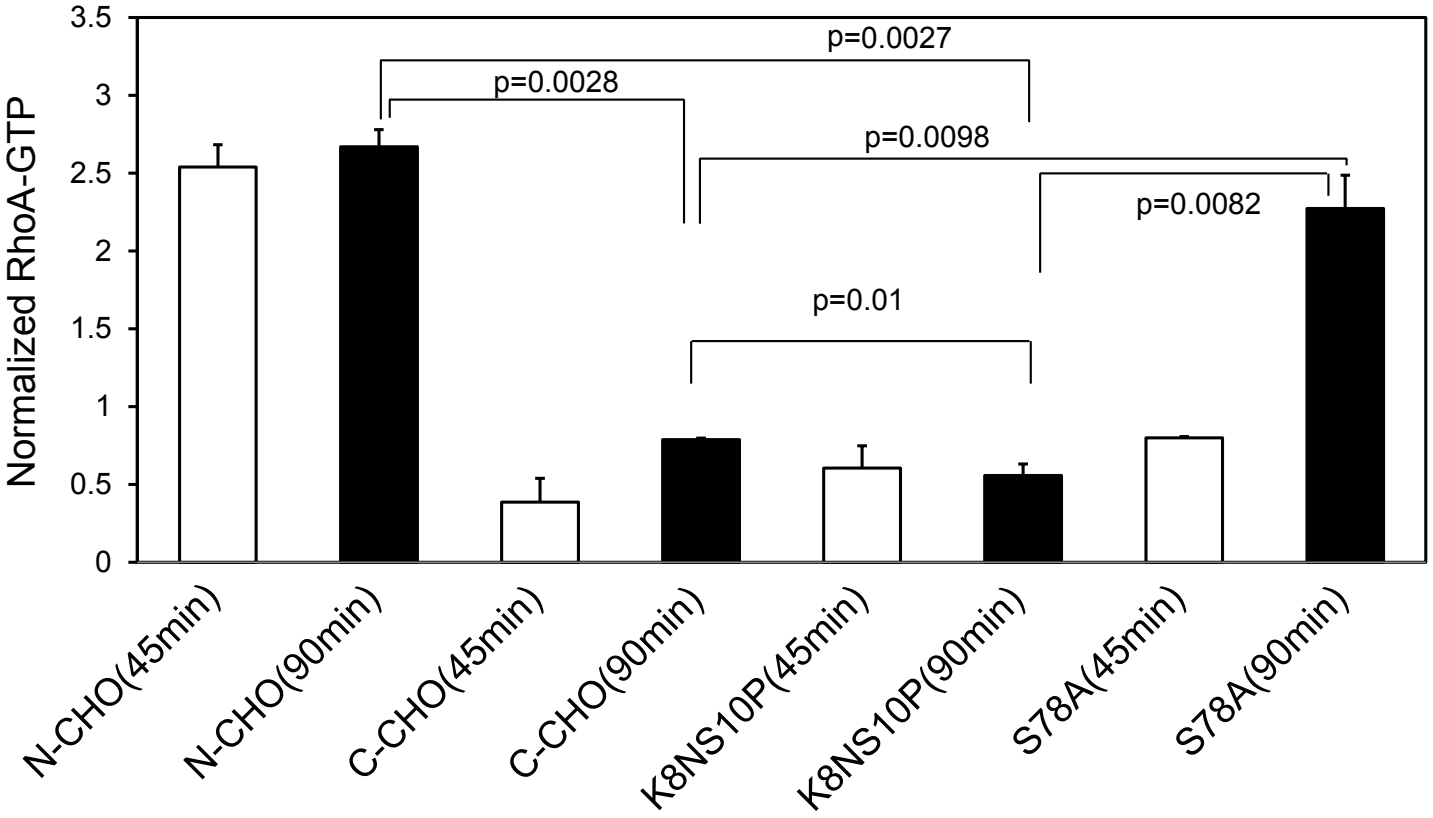

Fig. S3. Normalized RhoA-GTP in cells 45 and 90 minutes after activating intercellular junctions with 1.8 mM Ca^{2+}. The cadherin subtype expressed on the cells is indicated below each bar. The cadherin expression levels on the different cells are similar. The values are given in the main text.

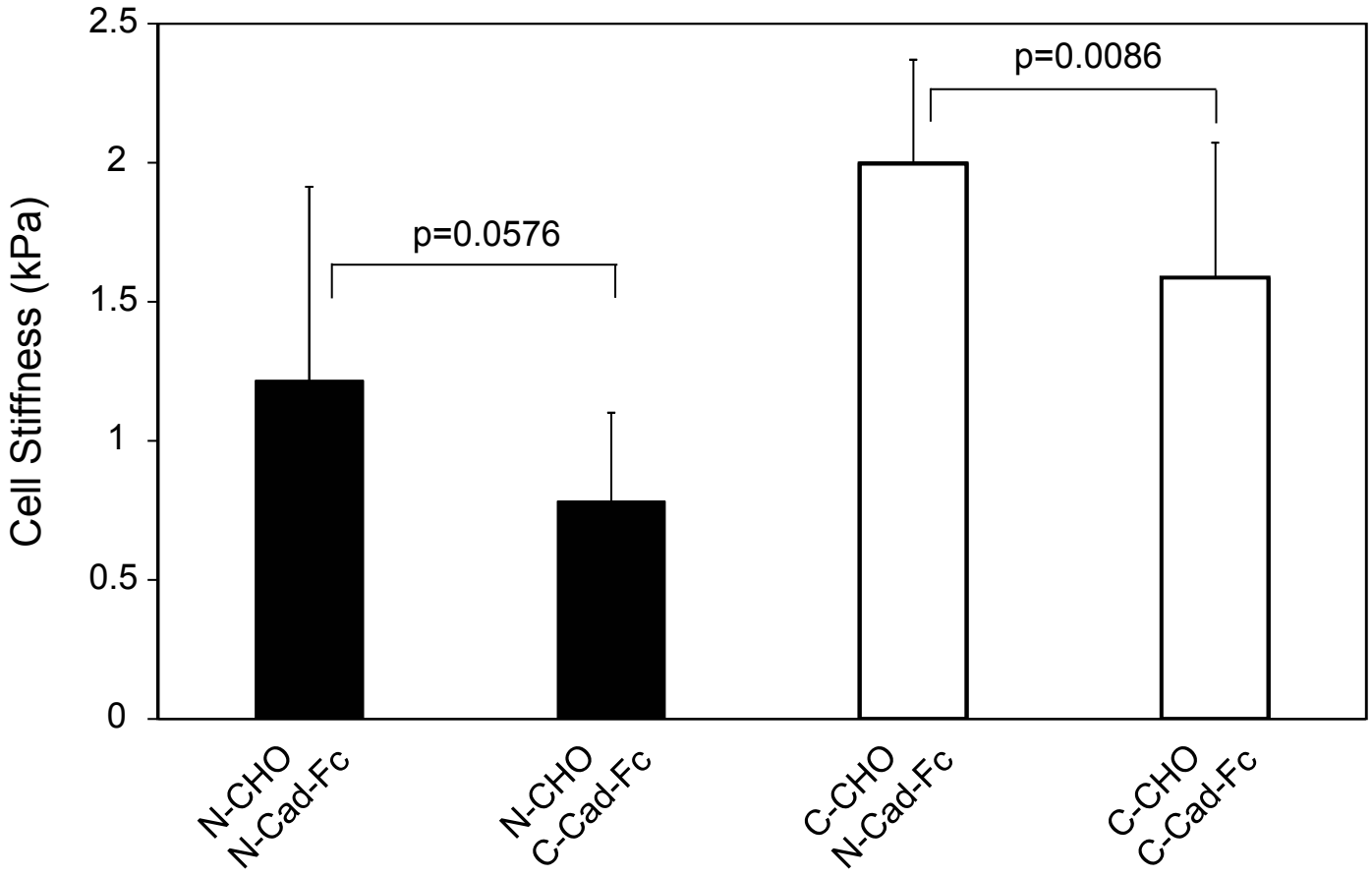

Fig. S4. Measured stiffness of single cells cultured on either CEC1-5-Fc or NEC1-5-Fc coated substrata in GMEM containing 0.05 v/v% FBS. Cell stiffness was determined by magnetic twisting cytometry, using beads coated with fibronectin. The cadherin pairs supporting cell adhesion are indicated below the bars.

Table S1. Rac1-GTP triggered by cell adhesion to ectodomain-coated substrata

Cell Line	Substrate Protein	Rac1-GTP Change
N-CHO	NEC1-5-Fc	0.8±0.3
C-CHO	CEC1-5-Fc	6.3±0.3
N-CHO	CEC1-5-Fc	1.2±0.4
S78A	CEC1-5-Fc	0.6±0.2
K8NS10P	CEC1-5-Fc	7±2
M92I	CEC1-5-Fc	4±2

Table S1. Rac1-GTP triggered by cell adhesion to ectodomain-coated substrata.