

Supplementary Figure S1. Epitope labelling of living cells confirms results on fixed cells

COS7 cells transfected with CNNM2a expression constructs with a HA-tag at positions 211 (HA211), 745 (HA745) or at the C-terminus (C-HA) showed correct targeting to the plasma membrane as demonstrated by immunostaining (in red) after formaldehyde fixation and permeabilization (upper panels). Immunostaining of living COS7 cells for the HA-epitope before fixation resulted in detection of HA211 only (lower panels). Nuclei stained with DAPI are shown in blue, size bar represents 50 μm in each panel.

Supplementary Figure S2. The CNNM2 N-terminus is retained in the perinuclear endoplasmic reticulum

(A) COS7 cells transfected with CNNM2a expression constructs with an HA-tag at the N-terminus (N-HA) or at position 25 without (HA25) or with (HA25-FLAG) an additional C-terminal FLAG-tag were permeabilized and co-immunostained with anti-HA (in red) and anti-Calnexin (CNX, in green). Merged images on the right show colocalization (in yellow) of the HA-tag with perinuclear parts of the ER. (B) The identical experiment as shown in the lower panel of (A), except for the omission of the primary antibody anti-CN X, excluding cross-staining of the anti-HA antibody. Nuclei stained with DAPI are shown in blue. Size bars represent 25 μm in each panel.

Supplementary Table S1: Primer sequences used for RT-PCR analysis

	<i>Forward</i>	<i>Reverse</i>
<i>Cnnm1</i>	5'-ACAGGTCACAGCAAGTCTCG-3'	5'-CCCATGTTTTCTCAGAGTC-3'
<i>Cnnm2v1</i>	5'-GTCTCGCACCTTTGTTGTCA-3'	5'-GTCGCTCCGACTGAGAGAAT-3'
<i>Cnnm2v2</i>	5'-CTCACAGCCTCTCCAGGG-3'	5'-AGGAAGAGCTGAGCTGGTTG-3'
<i>Cnnm3v1</i>	5'-CCTTAATGCACTCCTGGCTAC-3'	5'-CTGGGTCTGCTGTTGGTG-3'
<i>Cnnm3v2</i>	5'-CCTTAATGCACTCCTGGCTAC-3'	5'-AAAGAGGGAAAGGTGGACTG-3'
<i>Cnnm4</i>	5'-TCTGGGCCAGTATGTCTCTG-3'	5'-CACAGCCATCGAAGGTAGG-3'
<i>Trpm6</i>	5'-GTCTCGCACCTTTGTTGTCA-3'	5'-GTCGCTCCGACTGAGAGAAT-3'
<i>Trpv5</i>	5'-CCATGACTCCGCTAGTTGAG-3'	5'-TGGATGTCACGTGTCCAGTT-3'
<i>Gapdh</i>	5'-TAACATCAAATGGGGTGAGG-3'	5'-GGTTCACACCCATCACAAAC-3'

Figure S1

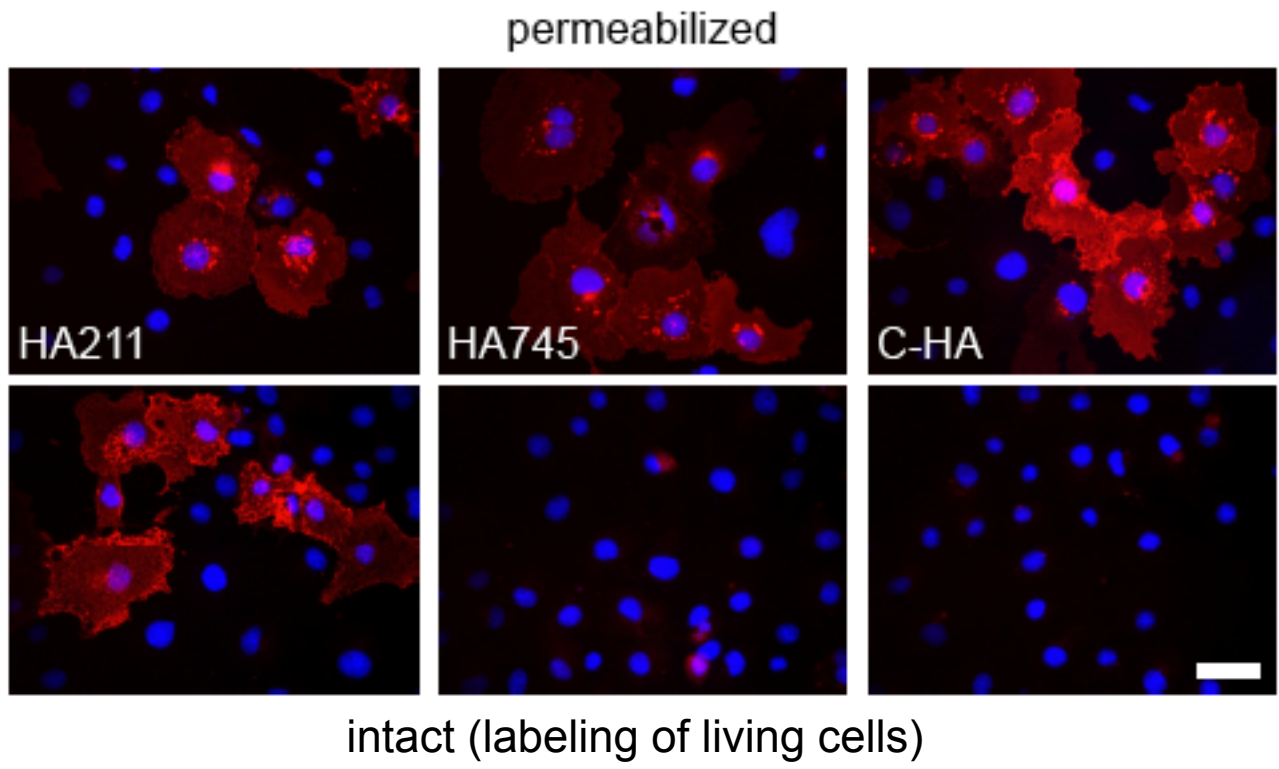
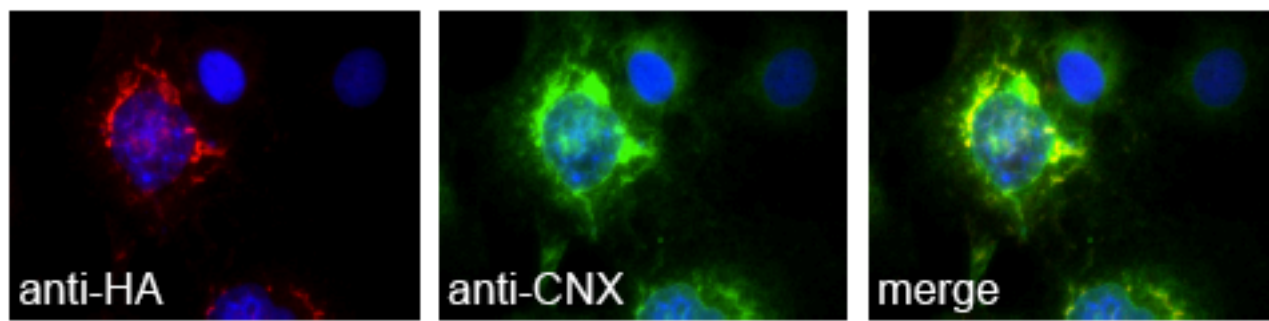


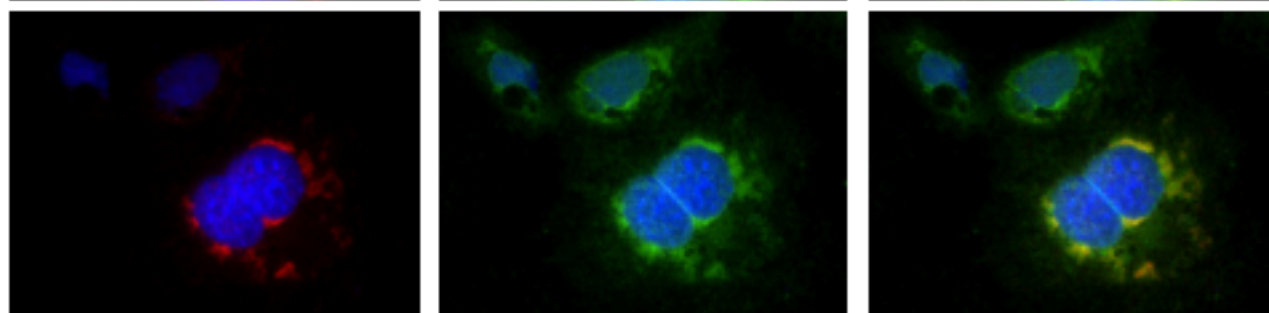
Figure S2

A

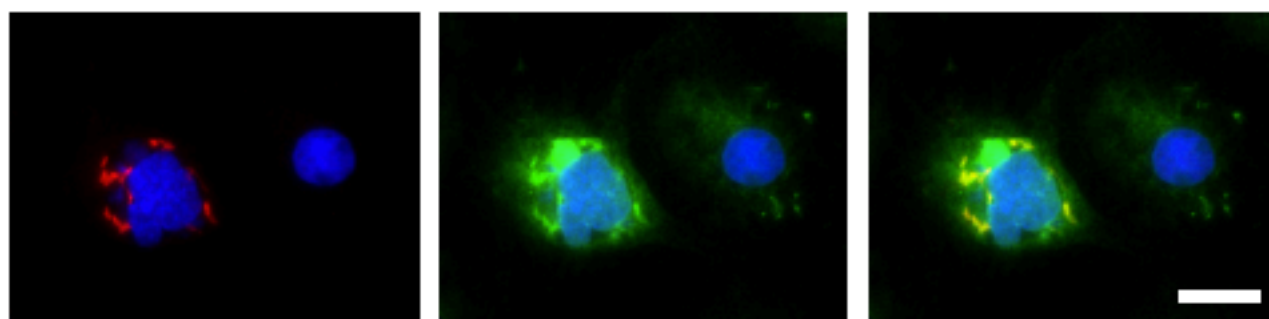
N-HA



HA25



HA25-FLAG



B

HA25-FLAG

