Supplementary Information

Unraveling a molecular determinant for clathrin-independent

internalization of the M2 muscarinic acetylcholine receptor

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Figure S1 | **CHC-depletion blocked uptake of Tfn in HEK293 cells.** (A) Representative images of Alexa 568-Tfn distribution in cells transfected with GFP-tagged vector or shCHC. Alexa 568-Tfn uptake experiments were performed as described in *"Methods"*. Cell contours were outlined, with yellow dash lines showing transfection-positive cells and white dash lines showing transfection-negative cells. Scale bar, 10 μ m. (B) Quantification of Tfn uptake in cells transfected with vector or shCHC. Mean \pm SEM of at least 40 cells from at least three independent experiments are shown. ***p < 0.001.



Figure S2 | Analysis of EGFP-tagged M2 and M4 mAChR recycling in living HEK293 cells. (A) Representative live imaging of cells stimulated with CCh (100 μ M) and subsequent washout of 60 min. Scale bar, 10 μ m. (B) Linear profile analysis showed after washout for 60 min, M2 signals were still located intracellularly due to CCh-induction, but the M4 signals partially trans-located onto the plasma membrane.