

SUPPLEMENTARY DATA FOR THE MANUSCRIPT:

Cellular effects and delivery propensity of penetratin is influenced by conjugation to parathyroid hormone fragment 1-34 in synergy with formulation pH

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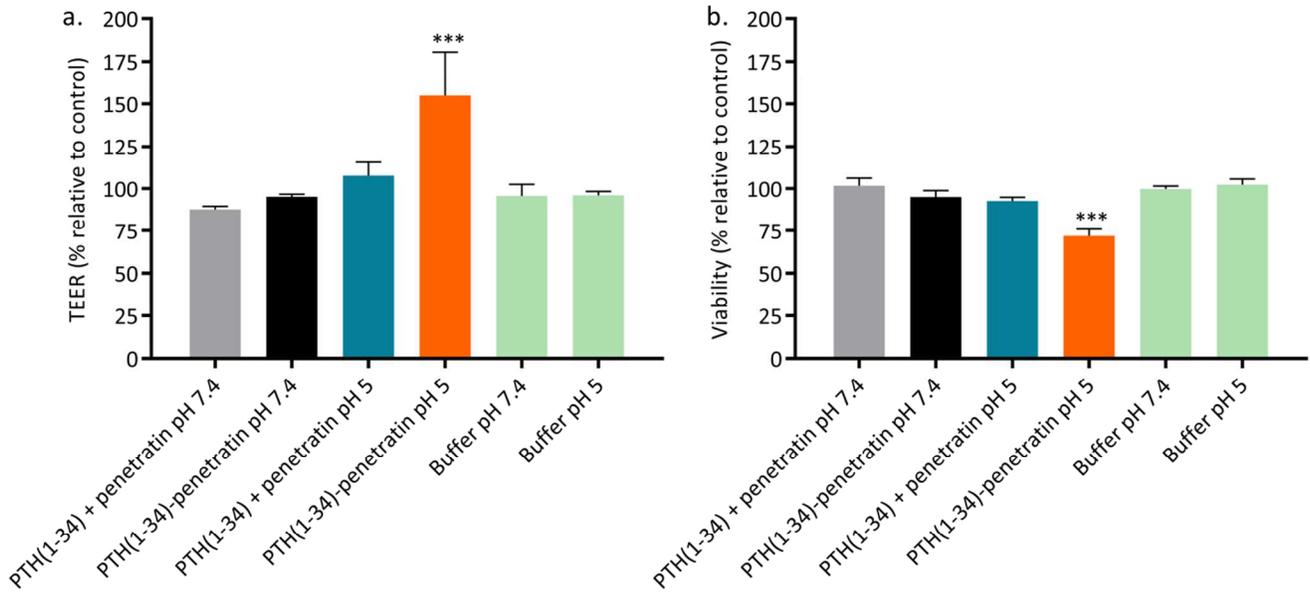


Figure SI 1. The relative TEER (a) and cellular viability (b) of polarized Caco-2 monolayers after 3 h of incubation with 40 μM PTH(1-34)-penetratin conjugate or 40 μM of PTH(1-34) co-administered with penetratin (ratio 1:1) followed by 24 h incubation with cell culture medium. The study was performed at 5% CO₂ at 37°C. Results are shown as % relative to control (10 mM HEPES HBSS pH 7.4) ± SEM (n = 6, N = 2). Level of significance is ***: p<0.001 when compared to control (pH 7.4 buffer).

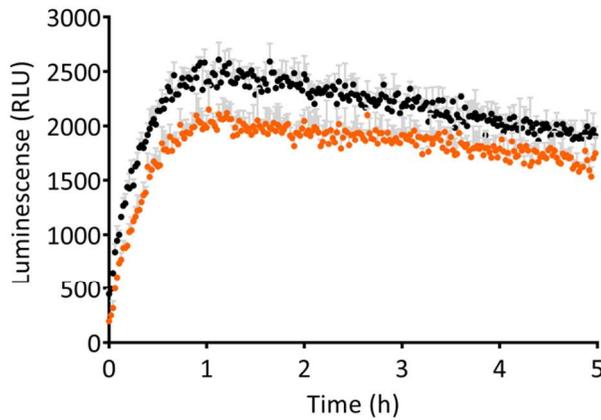


Figure SI 2. Real time viability of proliferating Caco-2 cells incubated with 10 mM HEPES HBSS pH 7.4 (black) or 10 mM MES HBSS pH 5 (orange). Data are presented as luminescent signal over 5 h ± SEM (n = 6, N = 2).

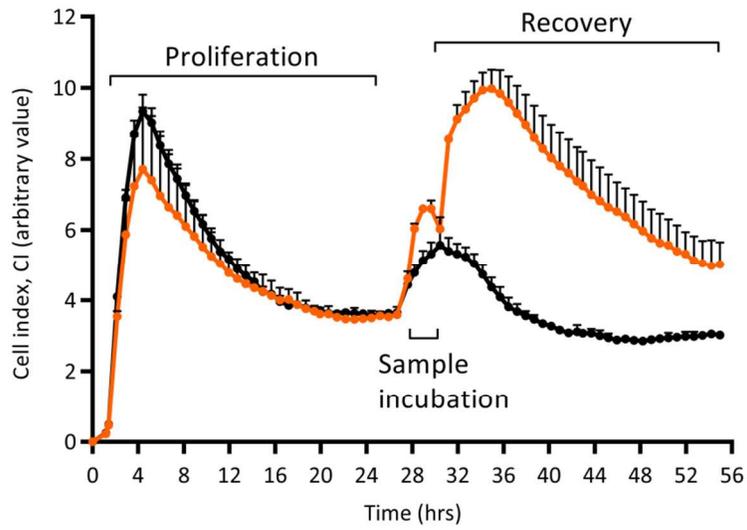


Figure SI 3. Monitoring morphological changes of Caco-2 cells during a 24 h proliferation period, 2 h sample incubation, and a recovery period using the xCELLigence system. Samples: 40 μ M penetratin pH 7.4 (black) and 40 μ M penetratin pH 5 (orange). Data are presented as average of cell index over 55 h \pm SD (n = 3).

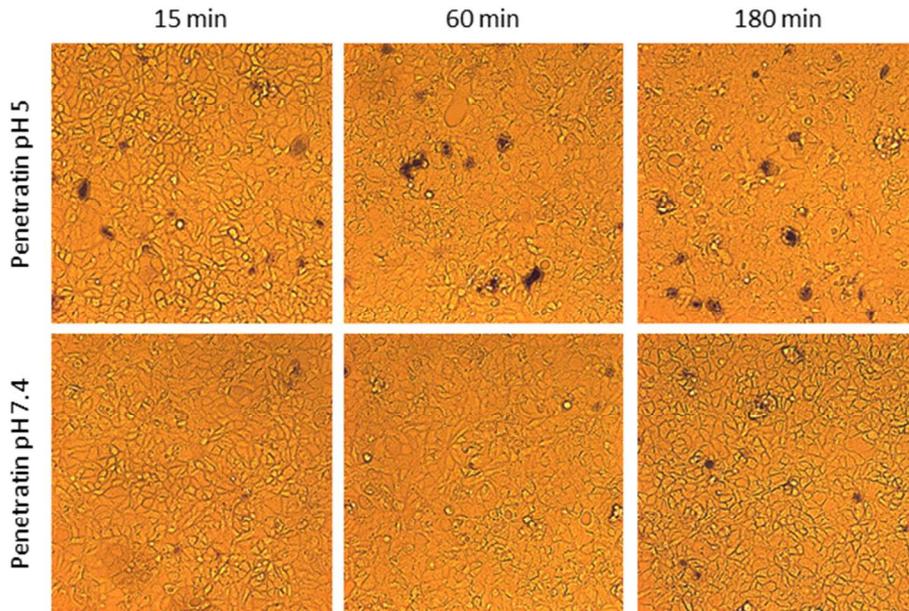


Figure SI 4. Representative bright field microscopy images from Trypan Blue® assay of Caco-2 cells incubated with 40 μ M penetratin at pH 5 or 7.4 at time points 15, 60, and 180 min.