Electronic Supplementary Material (ESI) for Food & Function.

Inhibition of intestinal glucose transport by polyphenols: a mechanism for indirect attenuation of cholesterol absorption?

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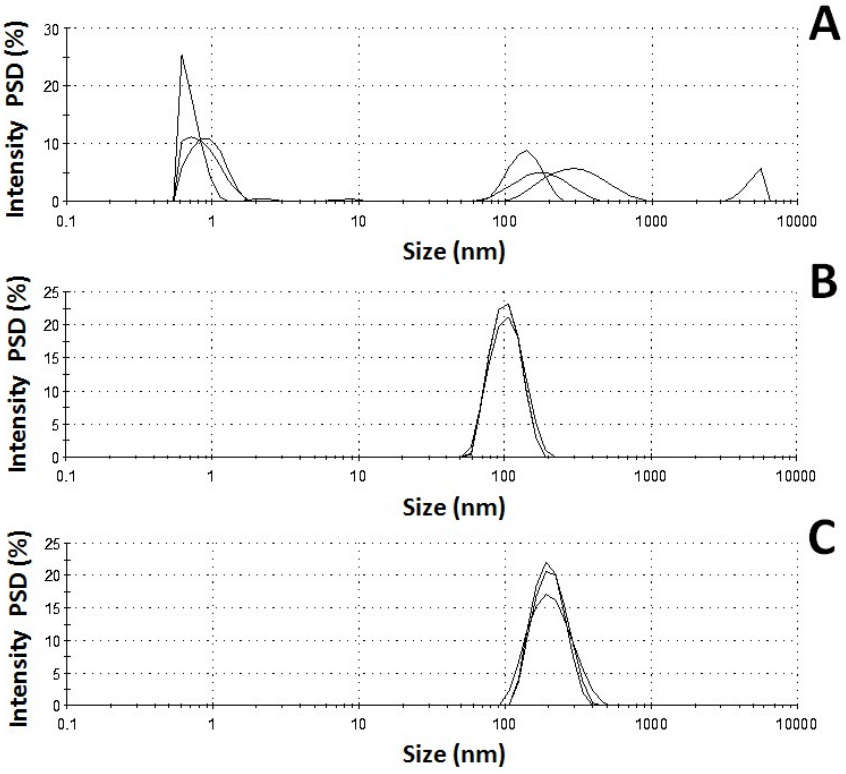

Figure S1. Formation of mixed-micelle containing cholesterol as assessed by particle size and distribution. (A) Insoluble cholesterol in solution, B) mixed-micelle formation without cholesterol and C) mixed-micelle containing cholesterol. The formation of self-assembly micelles can be observed by the homogenous distribution of size particle when comparing with insoluble cholesterol. Micellar [4-14C]-cholesterol uptake assay by Caco-2 cells. Micelles containing-cholesterol presented an increase in particle size of more than 100 %. Three individual experiments were conducted and the average particle size was analysed in triplicate. PSD: particle size distribution.

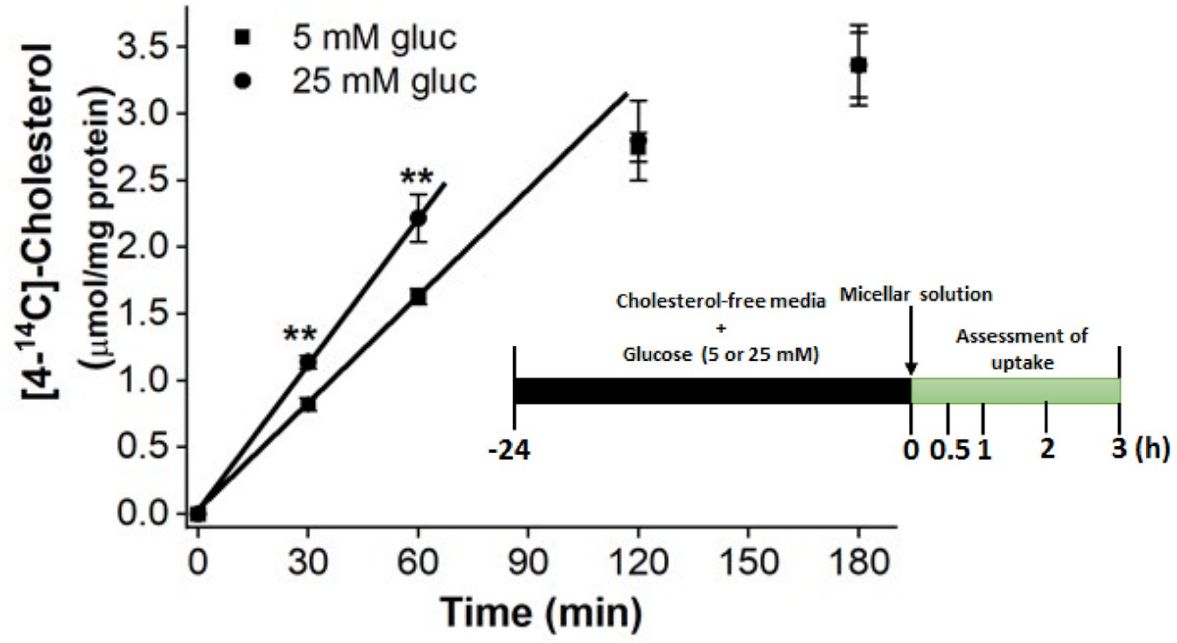

Figure S2. Effect of glucose concentration and incubation time on [4-14C]-cholesterol uptake in Caco-2 cells. Differentiated Caco-2 cells were cultured for 24 h in media containing either 5 or 25 mM glucose. At the end of the pre-incubation time, cells were exposed to a micelle solution spiked with [4-14C]-cholesterol in the presence of the same concentrations of glucose (either 5 or 25 mM) for the indicated time (30-180 min). Linear uptake of [4-14C]-cholesterol is indicated with dotted lines. The diagram showing the procedure used to treat the cells is presented as an insert. The data represent the mean value of three seeding experiments with at least 3 technical replicates. Results are expressed as mean values ± SEM. $**p<0.01$ compared with cells incubated with 5 mM glucose. When not visible, the error bars are smaller than the data point.