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Supplementary Information

Internalization Studies of Zeolite Nanoparticles by Human Cell

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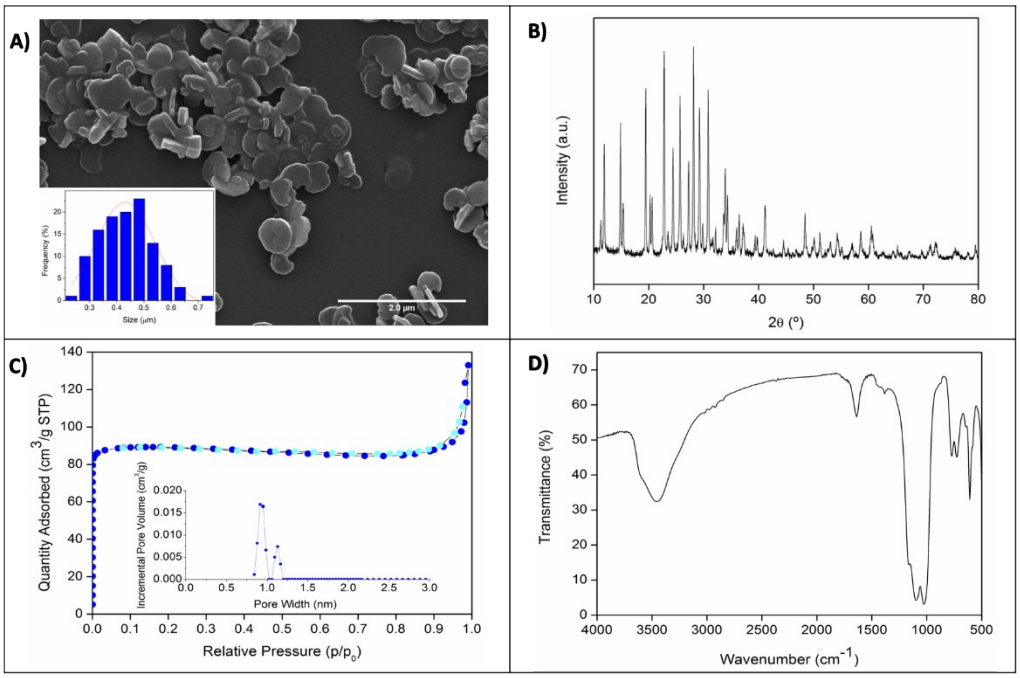

Figure S1: Characterization of the synthesized zeolite L. A) SEM micrographs of zeolite L dispersed in ethanol. Inset: Histogram representing statistical size distribution of zeolite L nanoparticles. B) XRD pattern of zeolite L. C) Nitrogen adsorption of zeolite L. Inset: pore size distribution. D) FTIR spectrum of zeolite L.

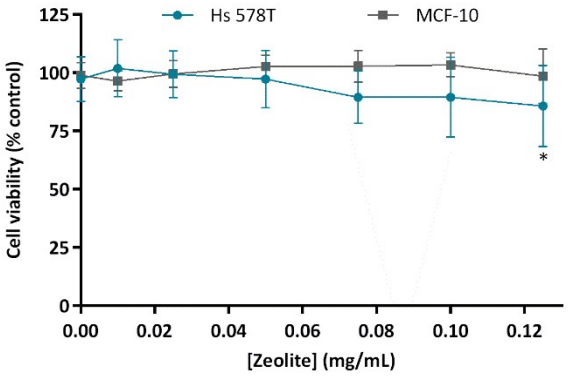

Figure S2: Cell viability of Hs 578T and MCF-10 cells, evaluated with SRB assay after 48 h incubation time with increasing concentrations of zeolite. Results are expressed in relation to the control (0 % of zeolite, considered 100 % of viability) as mean ± SD of three independent experiments, each performed in triplicate. Differences with a $p<0.05$ were considered statistically significant (*).

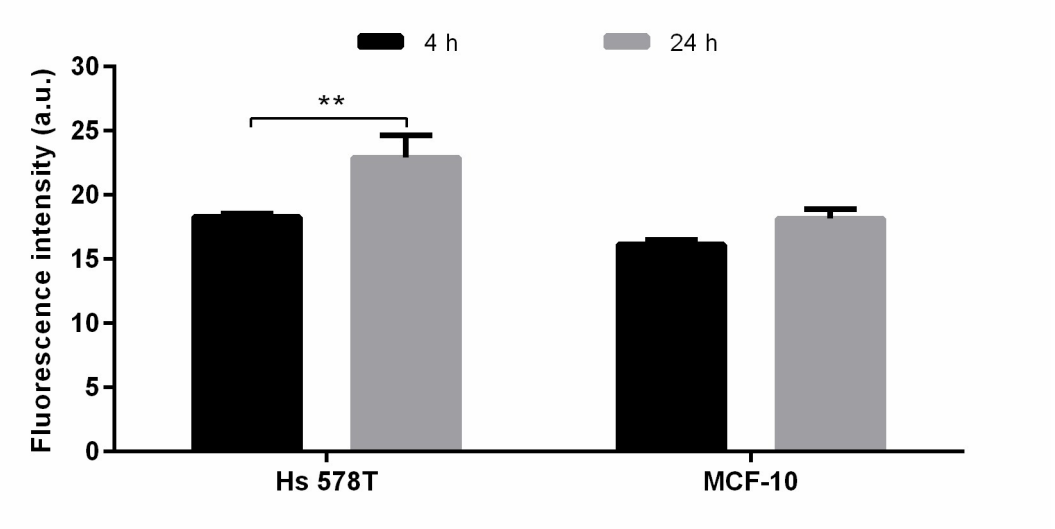

Figure S3: Fluorescence intensity measured using ImageJ Software. Zeolite L nanoparticles were incubated with Hs 578T and MCF-10 cells for 4 and 24 h incubation times at a concentration of 50 µg/mL. Difference between groups were evaluated by Two-way ANOVA followed by Bonferroni post-test. Results are expressed as mean ± SD, *n*=3 for all experiments. **p<0.01.

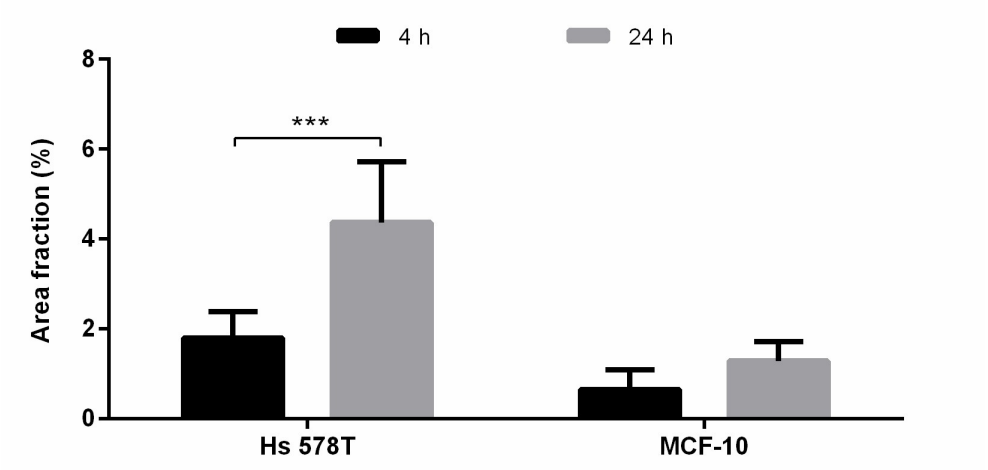

Figure S4: Percentage of zeolite L nanoparticles internalized by Hs 578T and MCF-10 cells. Cells were incubated with 50 µg/mL of zeolite L at 4 and 24 h incubation times. Results were analyzed by ImageJ Software. Difference between groups were evaluated by Two-way ANOVA followed by Bonferroni post-test. ***p<0.001. Mean ± SD. *n*=4 for Hs 578T experiments and *n*=5 for MCF-10 experiments.

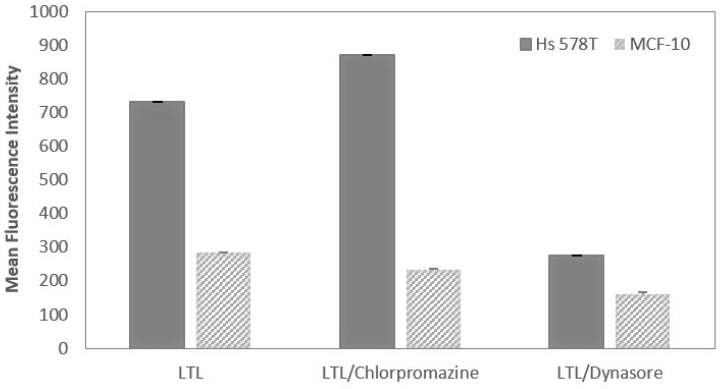

Figure S5: Effects of the pharmacological inhibitors on the uptake of zeolite L in Hs 578T and MCF-10 cells. Cells were treated with chlorpromazine (10 µg/mL) and dynasore (400 µM) for 1 h before incubation with 50 µg/mL of zeolite L for 4 h. After incubation cells were collected and analyzed by flow cytometry.