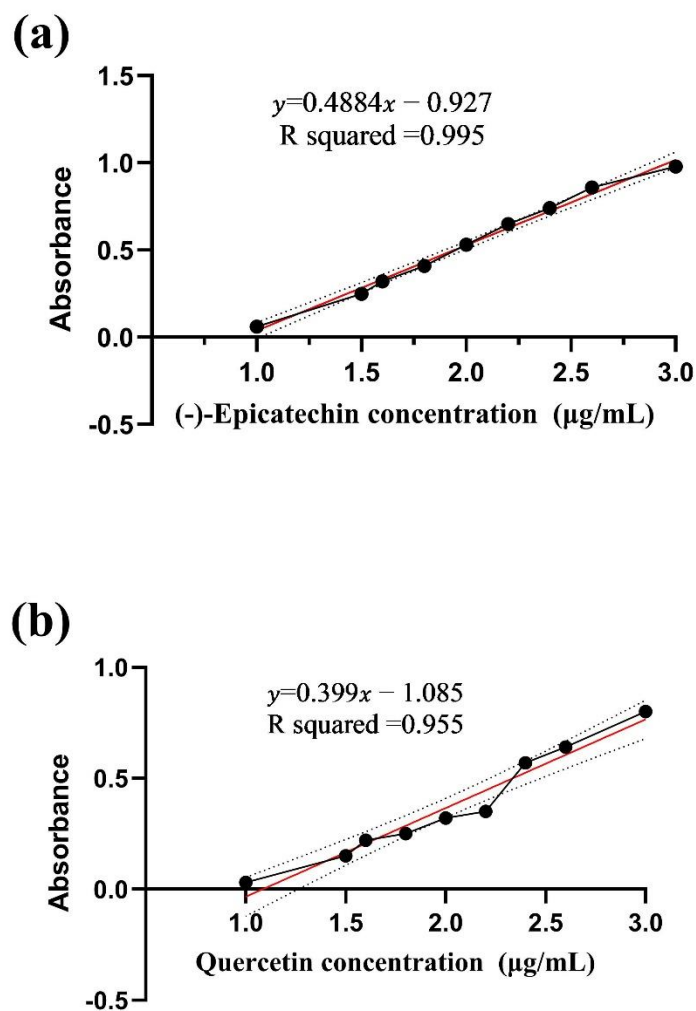


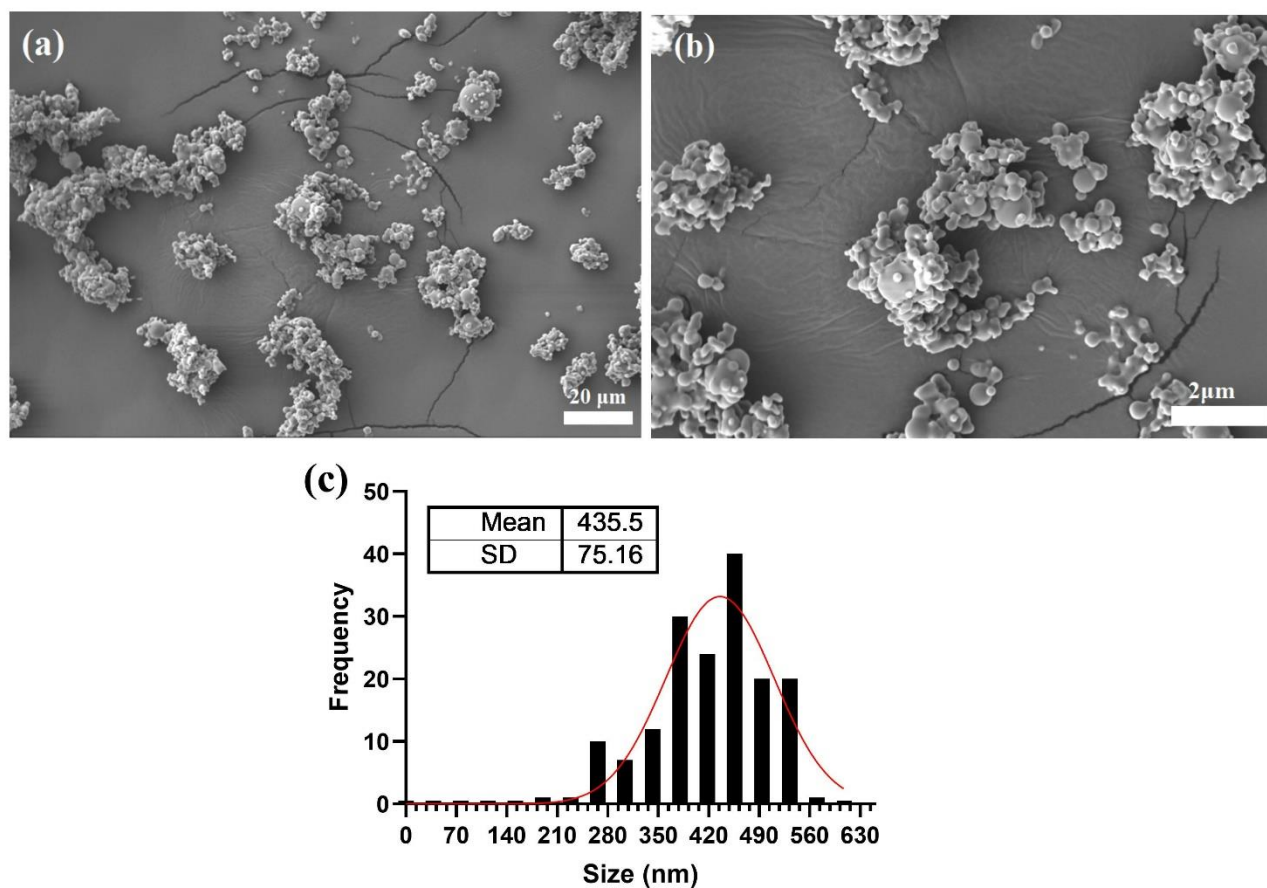
Supplementary Material

Supplementary Table S1. Release exponents in each equation and description of meaning.

Mathematical model		Reference
Peppas & Korsmeyer		[21]
Release exponent (n)	Geometry	Drug release mechanism model
0.50 0.45 0.43	Planar (thin films) Cylinders Spheres	Fickian diffusion
0.50 < n < 1.0 0.45 < n < 0.89 0.43 < n < 0.85	Planar (thin films) Cylinders Spheres	Anomalous (non-Fickian transport)
1.0 0.89 0.85	Planar (thin films) Cylinders Spheres	Case Type I transport
n > 1 n > 0.89 n > 0.85	Planar (thin films) Cylinders Spheres	Super Case Type II transport
Weibull		[25]
b = 1	First-order release obeying Fick's first law of diffusion	
b > 1	Indicative of complex release mechanism	
b < 0.35	Highly disordered spaces much different than the percolation cluster	
b ~ 0.35 – 0.39	Diffusion in the fractal substrate	
0.39 < b < 0.69	Diffusion in the fractal or disordered substrate	
b ~ 0.69 – 0.75	Diffusion in normal Euclidian space	
0.75 < b < 1	Diffusion in normal Euclidian substrate with a contribution of another release mechanism	
Lidner Lippold		[25]
b ~ negative values	Without an initial burst effect	
b ~ positive values	With an initial burst effect	



Supplementary Figure S1. Calibration curves for quantification of Released (-)-Epicatechin and Quercetin. The validated HPLC method was used to quantify the released (-)-Epicatechin and Quercetin. Both calibration curves were prepared at pH 7.4 and 37°C. (a) (-)-Epicatechin Calibration Curve: $R^2=0.995$, (b) Quercetin Calibration Curve: $R^2=0.955$.



Supplementary Figure S2. Size Characterization by Scanning Electron Microscopy (SEM) of NBPs. (a) and (b) present images of Inulin nanoparticles loaded with flavonoids ((-)- Epicatechin and Quercetin) NBPs. The particle size distribution histograms of NPs (c) were obtained with 165 particles from different areas of the sample, and a non-linear regression of Gaussian type was performed to obtain the average size of the nanoparticles.