

Supplementary Materials

Non-canonical activation of the epidermal growth factor receptor by carbon nanoparticles

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Physical analysis of carbon particle suspensions (CP=carbon particles; CNP carbon nanoparticles)

Method: Suspensions of particles in PBS [1 mg/ml] were prepared by ultrasound desintegration. Suspensions were analyzed by transmission electron microscopy (JEM-2100 LaB6, JEOL, Tokyo, Japan) and dynamic light scattering (Zetasizer, Malvern Instruments, Malvern, UK). Analyses were performed in triplicate. Results of the analyses performed for CNP have been published earlier.(Kroker *et al.*, 2015)

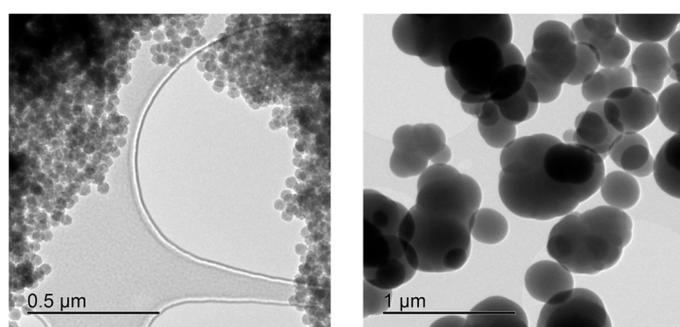


Figure S1. Transmission electron micrograph of CP after drying a particle suspension (H₂O) on a holey carbon film.

Table S1: Physical characteristics of CNP suspension in PBS.

	zeta potential [mV]	mobility [μmcm/Vs]	conductivity [mS/cm]	size [nm] peak1 [%]	size [nm] peak2 [%]	size [nm] peak3 [%]
CP	-16.0	-1.257	15.63	359 (±22) 100	-	-
CNP	-22.4	-1.755	16.56	887 (±197) 88.8	118 (±126) 10.5	1798 (±3114.8) 0.7

Kroker M, Sydlik U, Autengruber A, Cavalius C, Weighardt H, et al. 2015. Preventing carbon nanoparticle-induced lung inflammation reduces antigen-specific sensitization and subsequent allergic reactions in a mouse model. *Part Fibre Toxicol* 12:20.