

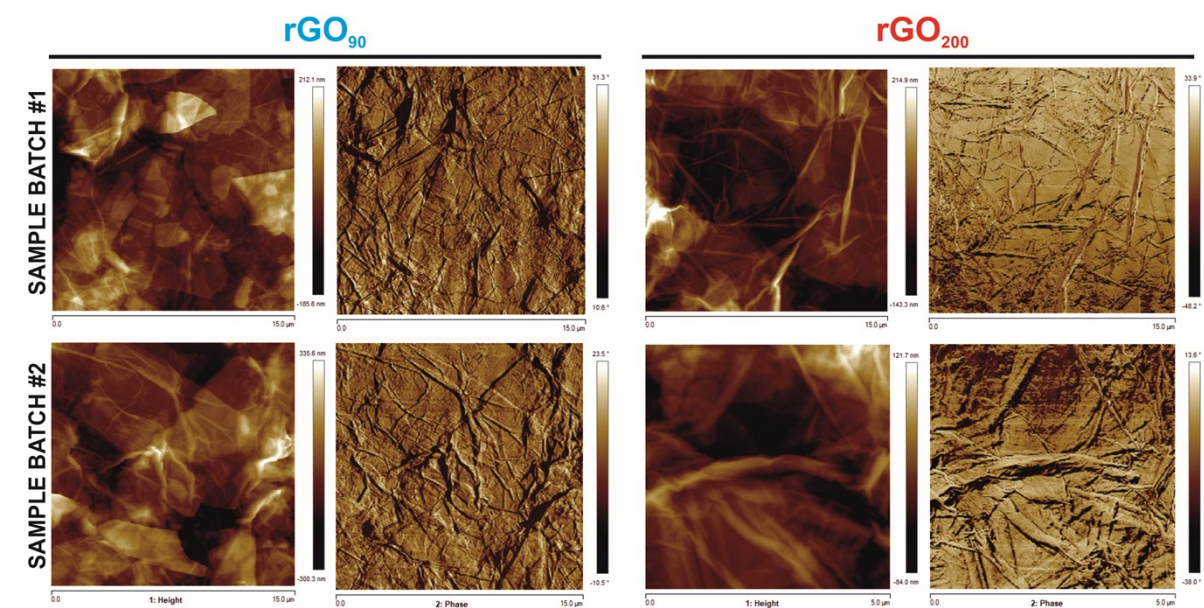
*Supporting information*

**Table S1.** List of antibodies for flow cytometry used in this study.

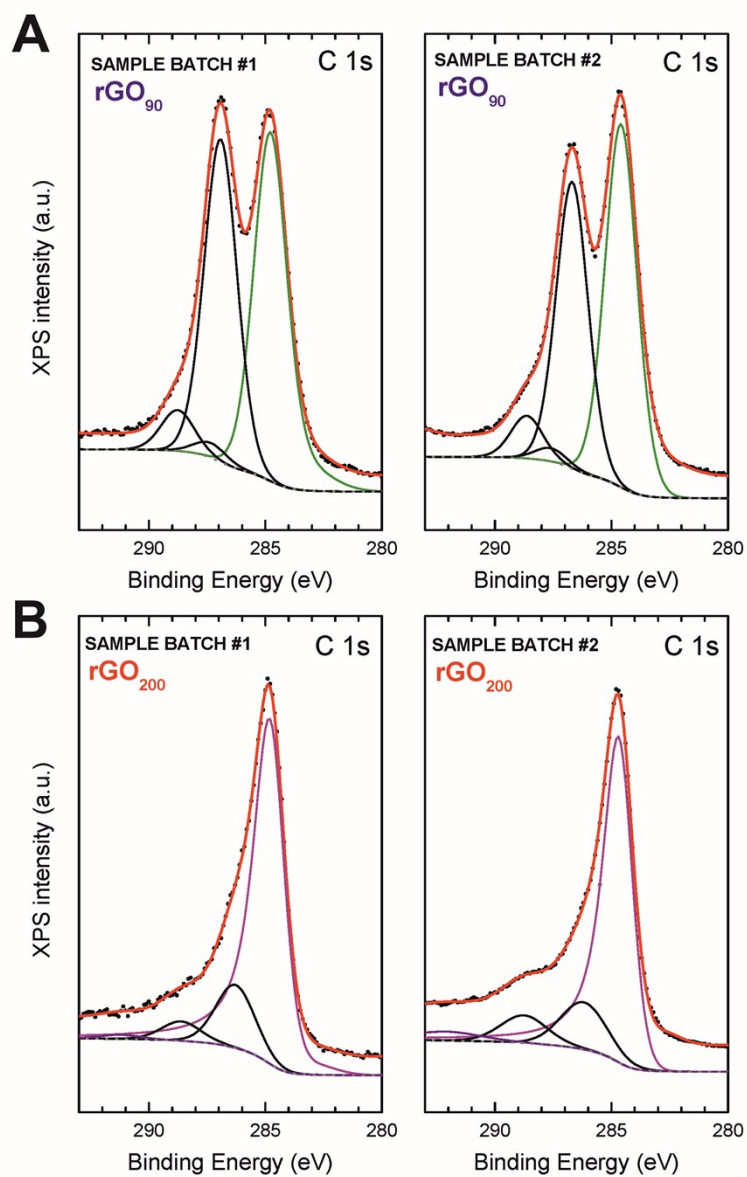
<b>Antibody</b>	<b>Target</b>	<b>Dilution<sup>a</sup></b>	<b>Class</b>	<b>Clone</b>	<b>Manufacturer</b>	<b>Antibody ID</b>
CD11b-PerCP Cy5.5	Myeloid cells	0.2µg	Rat monoclonal	M1/70	BD Biosciences	AB_394002
Ly-6C-FITC	MDSCs	0.2µg	Rat monoclonal	AL-21	BD Biosciences	AB_394628
Ly-6G-PE		0.2µg	Rat monoclonal	1A8	BD Biosciences	AB_394208
F4/80-eFluor450	Macrophages	0.2µg	Rat monoclonal	BM8	eBioscience	AB_1548747
CD11c-APC	Dendritic cells	0.2µg	Hamster monoclonal	N418	eBioscience	AB_469346
MHC-II-PE-Cy7.7	Antigen presenting cells	0.2µg	Rat monoclonal	M5/114.15.2	eBioscience	AB_10870792
CD3e-APC	T cells	0.2µg	Hamster monoclonal	145-2C11	BD Biosciences	AB_469315
CD4-PE	Helper T CD4 <sup>+</sup> cells	0.1µg	Rat monoclonal	RM4-5	BD Biosciences	AB_394585
CD8a-FITC	Citotoxic T CD8 <sup>+</sup> cells	0.25µg	Rat monoclonal	53-6.7	BD Biosciences	AB_394568

<sup>a</sup>Refers to the amount per million cells. Abbreviations: FITC, fluorescein isothiocyanate; PE, phycoerythrin; PB, pacific blue.

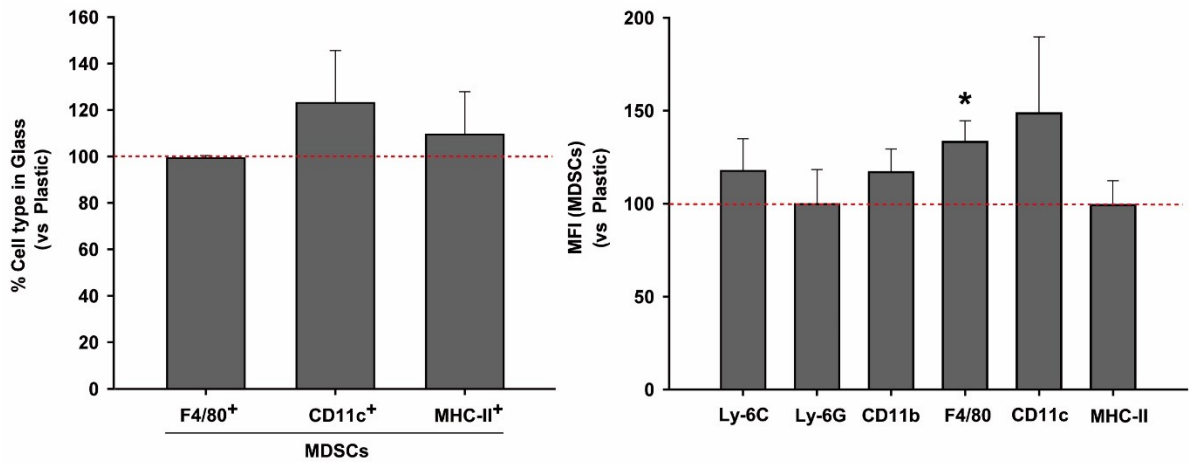
## SUPPLEMENTARY FIGURES



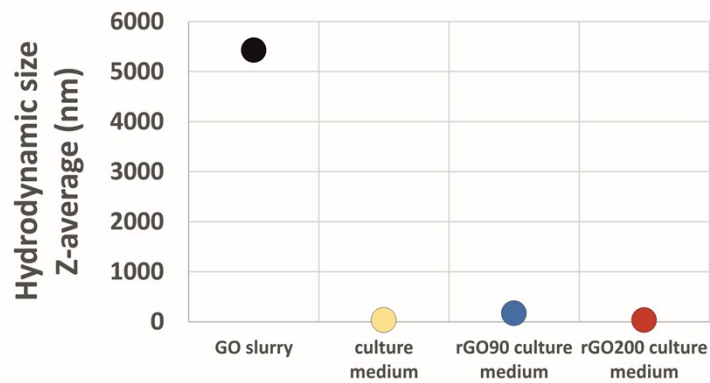
**Figure S1.** Representative AFM height and phase images of two independent batches of  $rGO_{90}$  and  $rGO_{200}$  substrates.



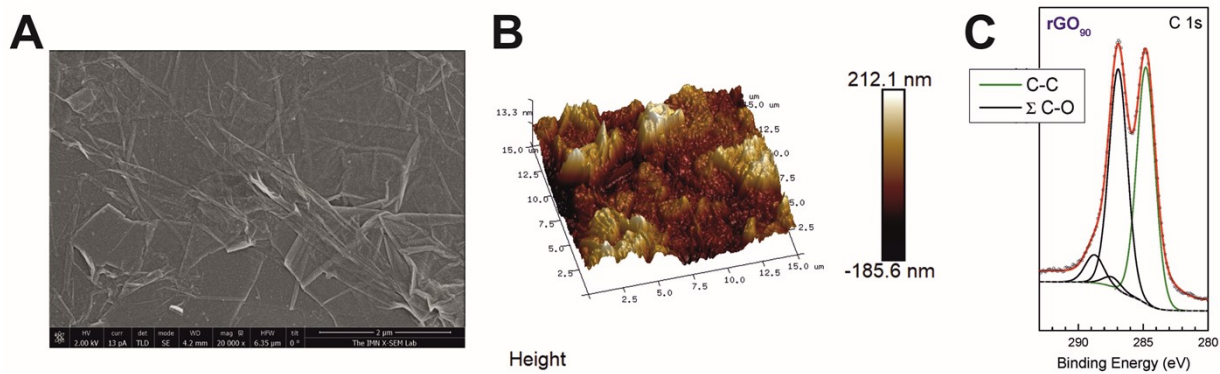
**Figure S2.** Representative XPS C1s spectra from two independent batches of rGO<sub>90</sub> and rGO<sub>200</sub> substrates. Color code as in Figure 1 in the main text.



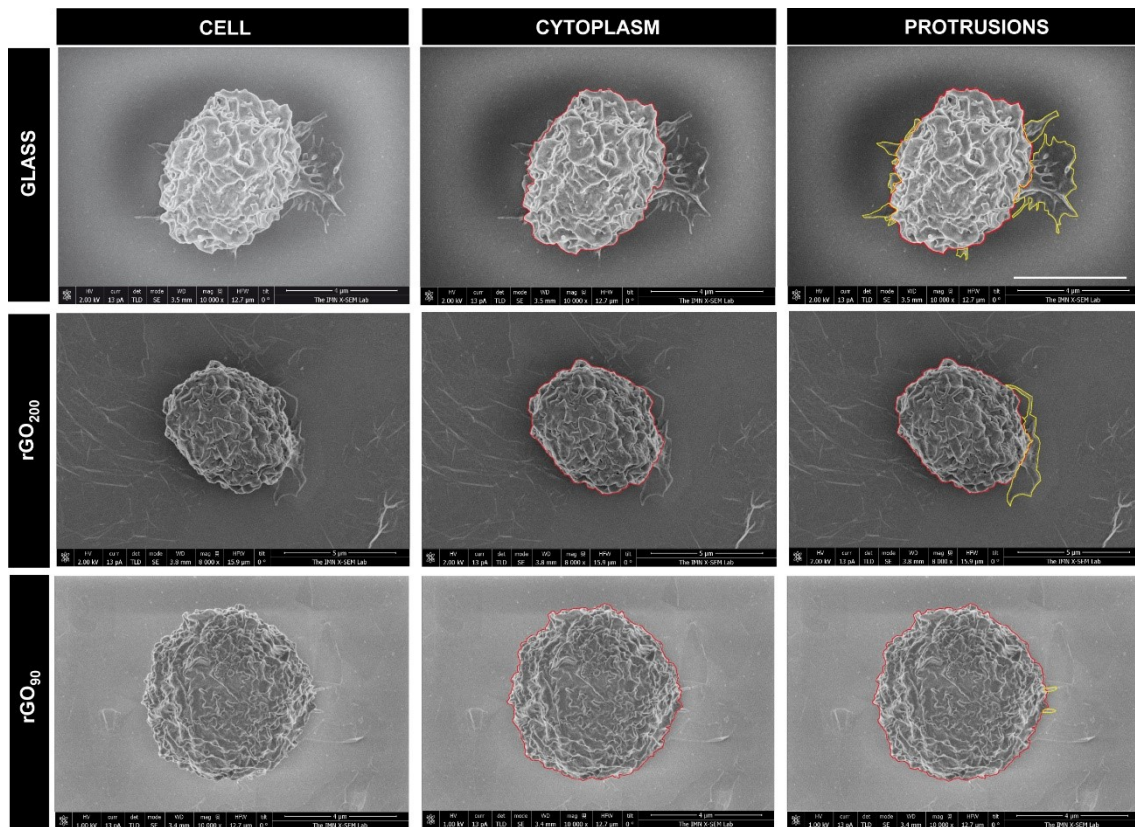
**Figure S3.** Immunophenotype of MDSCs after culture on glass coverslips does not induce remarkable modifications with respect to TCP in terms of maturation and activation. Values are expressed in cell percentage (left) and MFI values (right). Data are shown as the mean  $\pm$  standard error of the mean (N = 3 in all experiments).



**Figure S4.** Hydrodynamic size distribution of rGO nanosheets released from rGO<sub>90</sub> and rGO<sub>200</sub> substrates by DLS in intensity.



**Figure S5.** Physico-chemical properties of rGO<sub>90</sub> substrates: (A) representative SEM image, (B) AFM height image and (C) XPS C 1s spectrum.



**Figure S6.** Representative SEM images of bone marrow MDSCs after 24 h culture on glass coverslips, rGO<sub>200</sub> and rGO<sub>90</sub>. Red line delimitates the cell cytoplasm. Yellow lines surround cell protrusions. Scale bar represents 4  $\mu\text{m}$  in glass and rGO<sub>90</sub> and 5  $\mu\text{m}$  in rGO<sub>200</sub>.