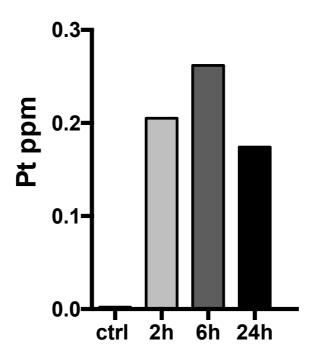


## **Supplementary Figure 1**

TEM images of PtNPs of 20 nm (A) and 5 nm (B) diameter with relative NPs size distribution analysis.



Supplementary Figure 2

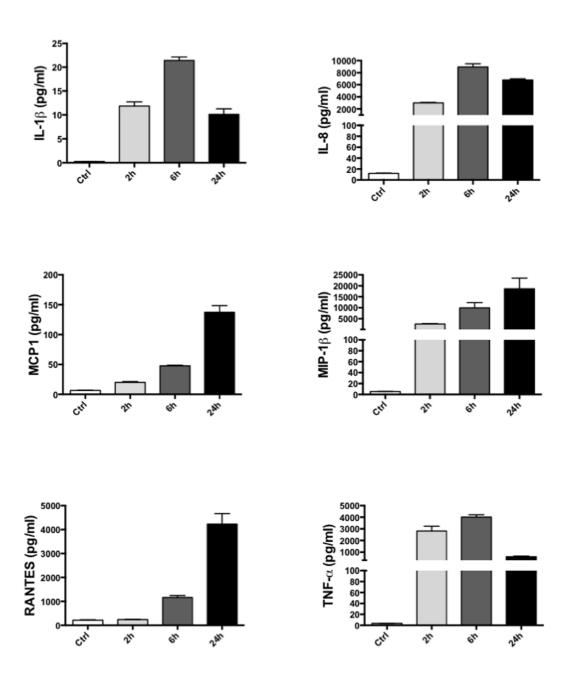
Paragentative quantificati

Representative quantification of internalized PtNPs/cell by ICP-AES. The control column represents untreated cells.

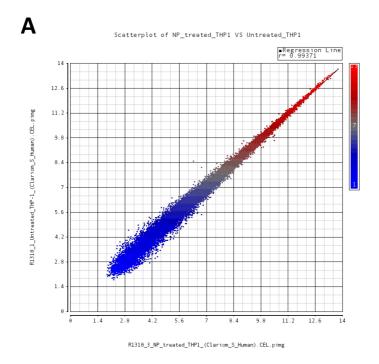
## Methods

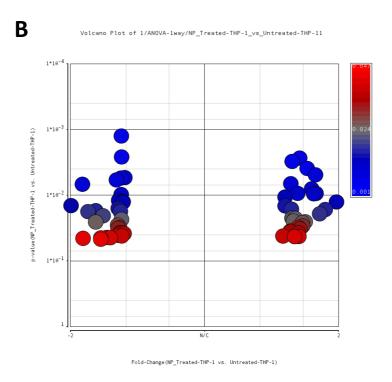
## Quantification of intracellular uptake of PtNPs by elemental analysis

 $1 \times 10^7$  cells per well in 6-well plates were incubated with 50 µg/ml PtNPs for 2, 6 and 24h. After treatments, cells were washed twice in sterile PBS and digested overnight with 1 ml of aqua regia. Then, the samples were diluted to 10 ml with MilliQ water and the amount of internalized Pt-NPs per cell was directly quantified by Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) (Agilent 720/730 spectrometer).



**Supplementary Figure 3**Cytokines release after LPS (Lipopolysaccharide) 100ng/ml used as positive control





## **Supplementary Figure 4**

Scatter plot of untreated vs PtNPs treated THP-1 cells (A) and volcano plot of the 60 modulated genes (B).