

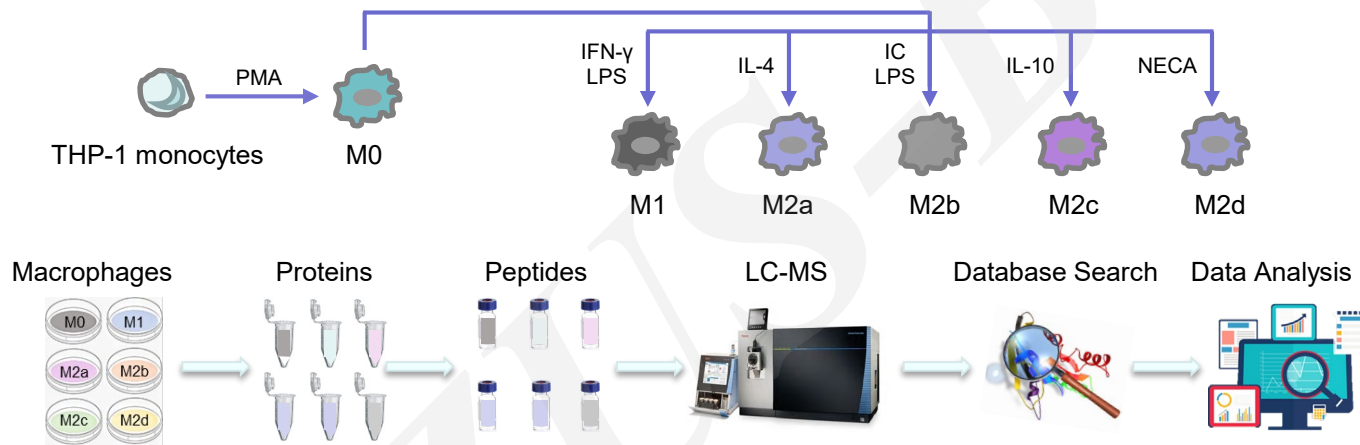
Cite this as: Pengfei LI, Chen MA, Jing LI, Shanshan YOU, Liuyi DANG, Jingyu WU, Zhifang HAO, Jun LI, Yuan ZHI, Lin CHEN, Shisheng SUN. Proteomic characterization of four subtypes of M2 macrophages derived from human THP-1 cells[J]. Journal of Zhejiang University Science B, 2022, 23(5): 407-422.
<http://doi.org/10.1631/jzus.B2100930>

Proteomic characterization of four subtypes of M2 macrophages derived from human THP-1 cells

Key words: Macrophage; THP-1 cells; M2 subtypes; Proteomics; Biological function

Research Summary

In this study, we systematically analyzed the protein expression profiles of human THP-1-derived macrophages (M0, M1, M2a, M2b, M2c, and M2d) using quantitative proteomics approaches.

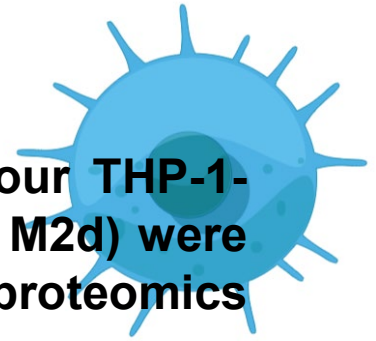


- The commonly and specially regulated proteins of the four M2 subtypes and their potential biological functions were further investigated.

- The M2a and M2b, and M2c and M2d have very similar protein expression profiles.

- This study confirmed several known markers and generated a list of novel marker candidates which could be used for the identification of M2a, M2b, M2c, and M2d macrophages.

Innovation points



- For the first time, the protein expression profiles of four THP-1-derived M2 macrophage subtypes (M2a, M2b, M2c, and M2d) were systematically analyzed by using quantitative proteomics approaches.
- This study generated a list of novel marker candidates which could be used for the identification of M2a, M2b, M2c, and M2d macrophages.
- Immune-associated diseases were predicted for the four M2 subtypes

