

A new tool to measure pyroptosis: Gasdermin D (mouse) ELISA kit

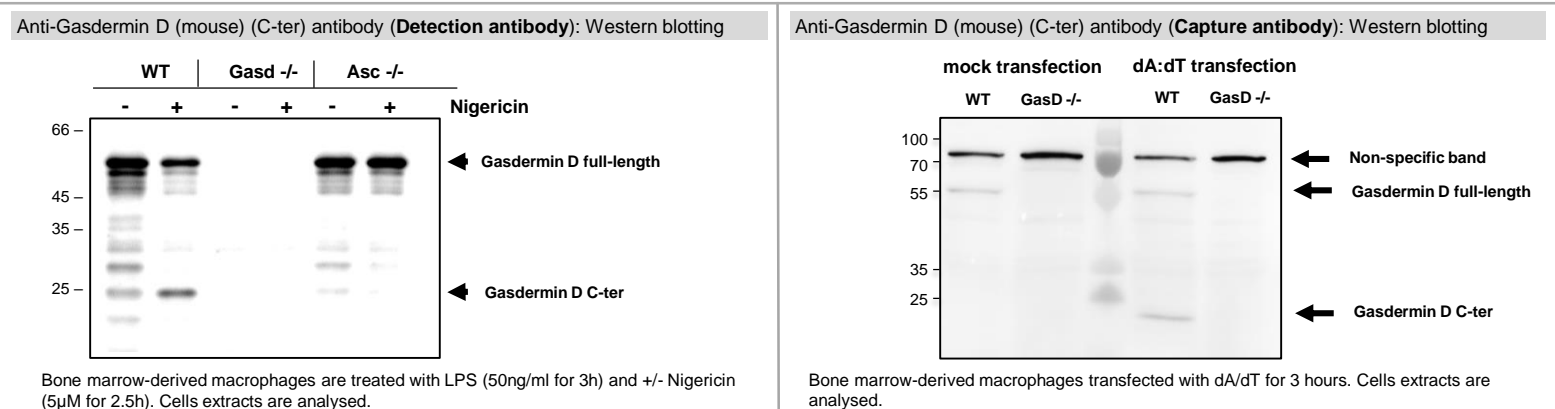
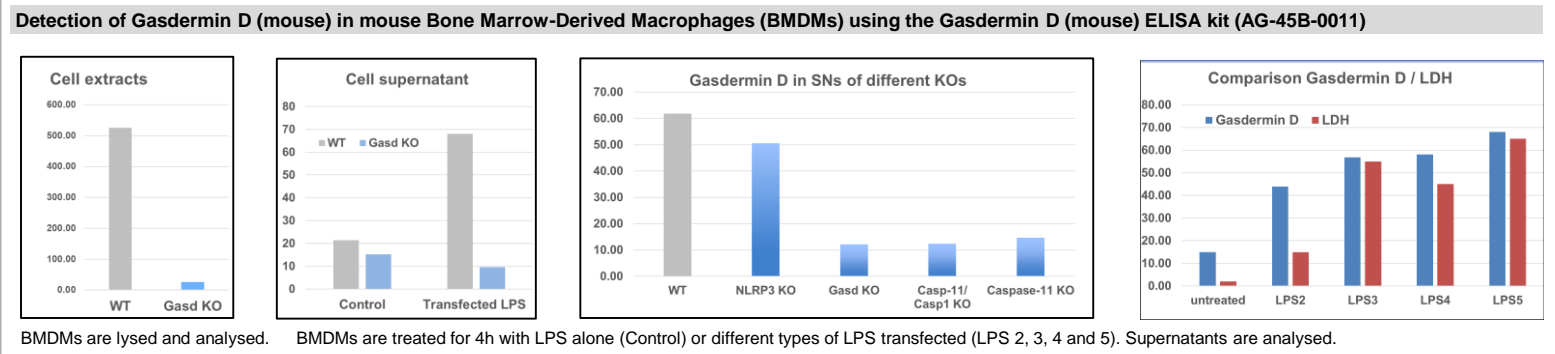
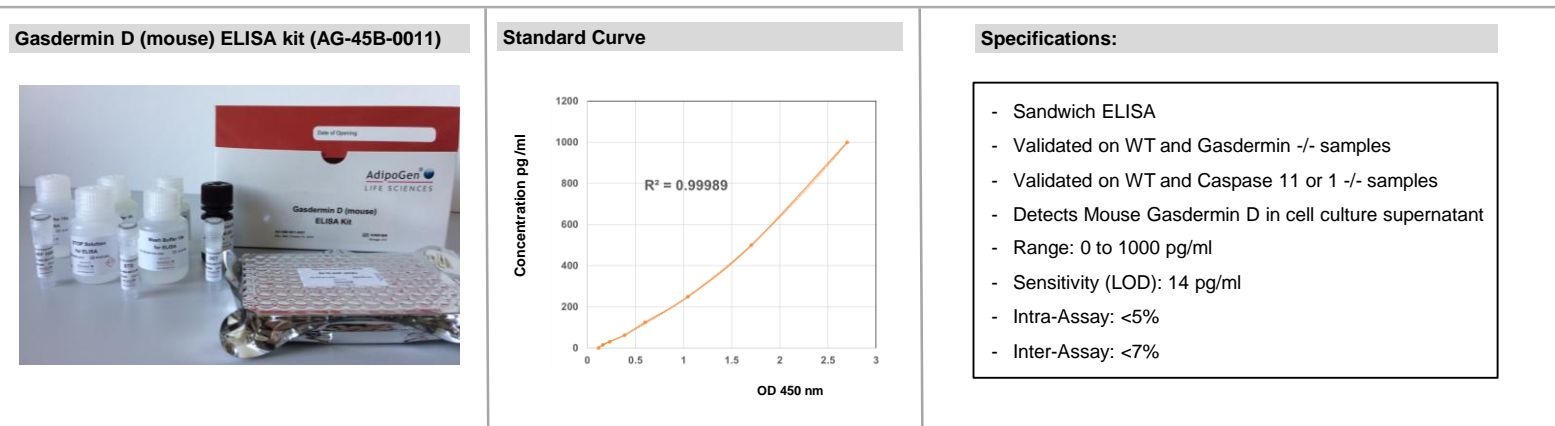
Jacqueline Barge-Khlat¹, Cynthia Dayer¹, Olaf Gross², Petr Broz³ and Olivier Donzé¹

1. Adipogen Life Sciences, Route de la Corniche 9A, CH-1066 Epalinges, Switzerland. Email: info@adipogen.com
2. Institute of Neuropathology, University Medical Center Breisacher Straße 66 · 79106 Freiburg, Germany
3. Lausanne University, Department of Biochemistry, Ch. des Boveresses 155, CH-1066 Epalinges, Switzerland

Introduction

Pyroptosis is an inflammatory programmed cell death that is initiated in response to pathogen- or host-derived perturbations of the cytosol. Pyroptosis is induced by inflammatory caspases, such as caspase-1 and -11 in mice that are activated by a high molecular weight complex, called inflammasomes. Gasdermin D (GSDMD) is the central mediator of pyroptotic cell death downstream of both caspase-1 and caspase-11. GSDMD is cleaved by these caspases into a 31 kDa N-terminal fragment (GSDMD^{Nterm}) that forms pores into the plasma membrane and a 22 kDa C-terminal fragment (GSDMD^{Cterm}). We present here the data obtained with a new Gasdermin D (mouse) ELISA kit based on antibodies developed against the C-terminal fragment of Gasdermin D (mouse).

Results



Conclusions

- 1) New antibodies to Gasdermin D (mouse) (C-ter) have been developed. They detect Gasdermin D (mouse) full-length and cleaved C-terminus fragment by WB.
- 2) Antibodies are specific as validated by using Gasdermin D -/- or Asc -/- extracts by Western blotting (WB).
- 3) Using the antibodies to Gasdermin D (mouse) (C-ter), a new ELISA Kit has been developed to detect secreted Gasdermin D (mouse) in cell culture supernatants.
- 4) Gasdermin D (mouse) ELISA kit detects specifically Gasdermin D as validated by using supernatants from Gasdermin D -/- or Caspase 11 -/- samples.