

AdipoGen™

Connecting Immunology to Metabolism™

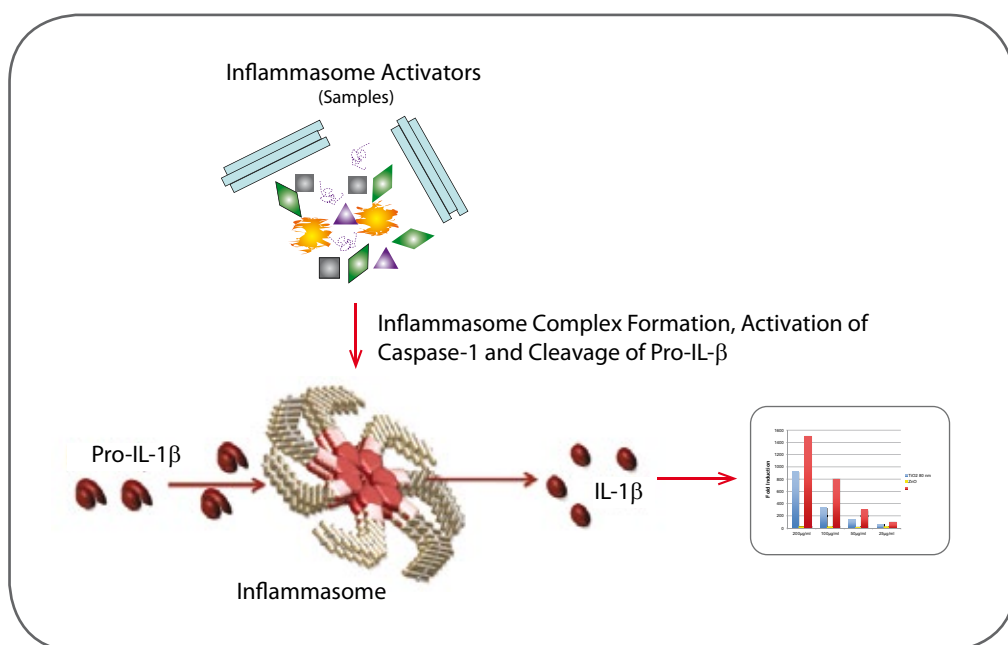
www.adipogen.com



Flammosome™ Test

Inflammasome Activity Test

Interleukin-1 β (IL-1 β) is a potent mediator of inflammation. Pro-IL-1 β is cleaved by the protease caspase-1 that itself is autoactivated by the large multiprotein complexes called inflammasomes (e.g. NLRP3/NALP3). Following cleavage of the pro-IL-1 β , the biologically active form IL-1 β is secreted. The signal required for the inflammasome formation can be of heterogeneous nature, including particulate stimuli, pathogens, pore-forming toxins or extracellular ATP.



AdipoGen offers a unique test for measuring the inflammasome activity of extracellular signals. Features of the test are:

- Testing nanoparticles or other chemicals (samples) on inflammasome activity using human macrophages THP1 WT and THP1 NLRP3/NALP3 KO.
- Measurement of secreted human IL-1 β using a specific IL-1 β (human) ELISA Kit.
- Performing test at 4 different concentrations of samples.
- Use of positive and negative controls.
- Samples are tested on endotoxin content.
- Final report in 2-3 weeks upon receipt of samples.

LITERATURE REFERENCE:

Nanoparticles activate the NLR pyrin domain containing 3 (Nlrp3) inflammasome and cause pulmonary inflammation through release of IL-1 α and IL-1 β : A.S. Yazdi, et al.; PNAS 107, 19449 (2010)

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CONTINUED ON BACKCOVER

SERVICES

Typical Result: Effect of Sample on human IL- β secretion: comparison to positive control (titanium oxide; TiO₂) and negative control (zinc oxide; ZnO)

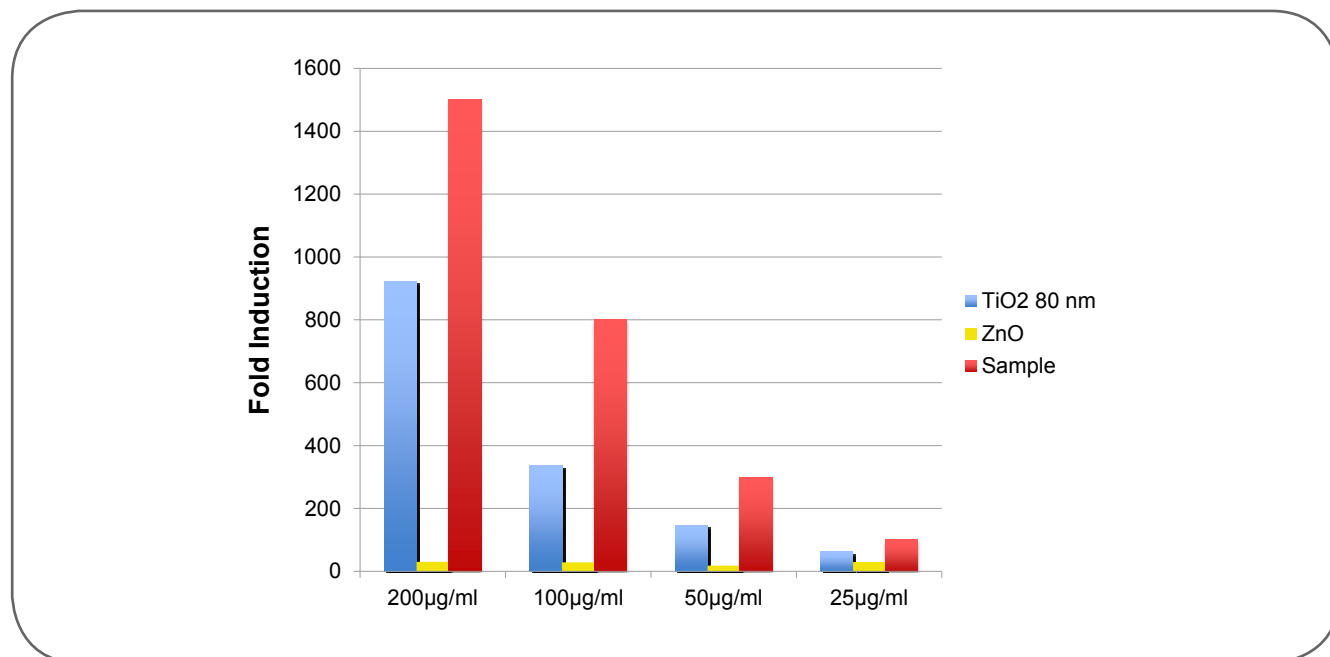


FIGURE: Measurement of IL-1 β upon treatment of THP1 cells at different sample concentrations.

METHOD: THP1 cells were incubated with indicated concentrations of TiO₂, ZnO and Sample for 6 hours. Secreted IL-1 β was measured using a specific IL-1 β (human) ELISA Kit.

Highlight

Related Products – Highlights

anti-NLRP3/NALP3, mAb (Cryo-2)	AG-20B-0014-C100	100 μ g
anti-Asc (human), pAb (AL177)	AG-25B-0006-C100	100 μ g
Monosodium urate (crystals)	AG-CR1-3950-M002	2 mg
Monosodium urate (ready-to-use)	AG-CR1-3951-M010	10 mg

