In vivo Pharmacology: Lipopolysaccharide (LPS) Induced TNF-α Production in Mice

Species, strain, sex:	mouse, Balb/c, male
No.of animals per group:	n=8
Pharmacological control:	dexamethasone
Routes of administration:	PO, IP, SC, IV, IM
Treatment mode:	prophylactic, therapeutic
Duration of dosing:	1 day or upon request

Main read-outs:

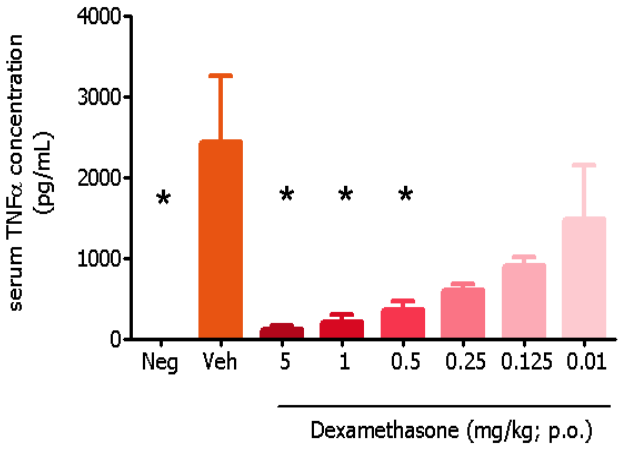
- TNF-a concentration in serum

Facultative read outs:

- concentration of other inflammatory mediators in serum

After intraperitoneal administration, LPS, a constituent of the cell wall of Gram-negative bacteria, binds to a lipopolysaccharide binding protein (LBP) in blood. The LPS-LBP complex is a ligand for the CD14 receptor at the surface of monocytes and macrophages. The interaction of LPS-LBP with the receptor triggers the secretion of TNF-a. The anti-inflammatory activity of test compounds is evaluated 90 minutes after LPS administration (main and facultative read-outs).

LPS-induced TNF-a production in mice



*p<0,05 vs. Vehicle; Kruskal-Wallis with Dunn's multiple comparison test

References

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Contact us:

Adrijana Vinter, Business Development
adrijana.vinter@glpg.com
+385 91 265 5527

Mila Vrančić, Business Development
mila.vrancic@glpg.com
+385 91 265 5528