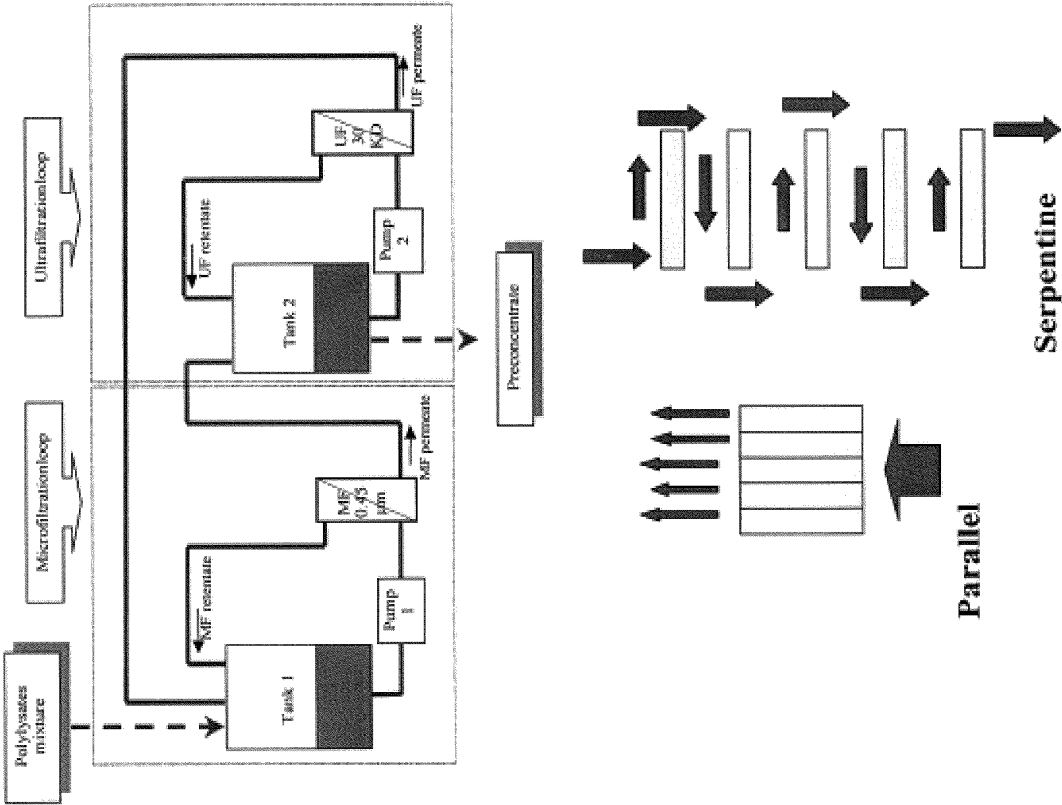


Figure 1



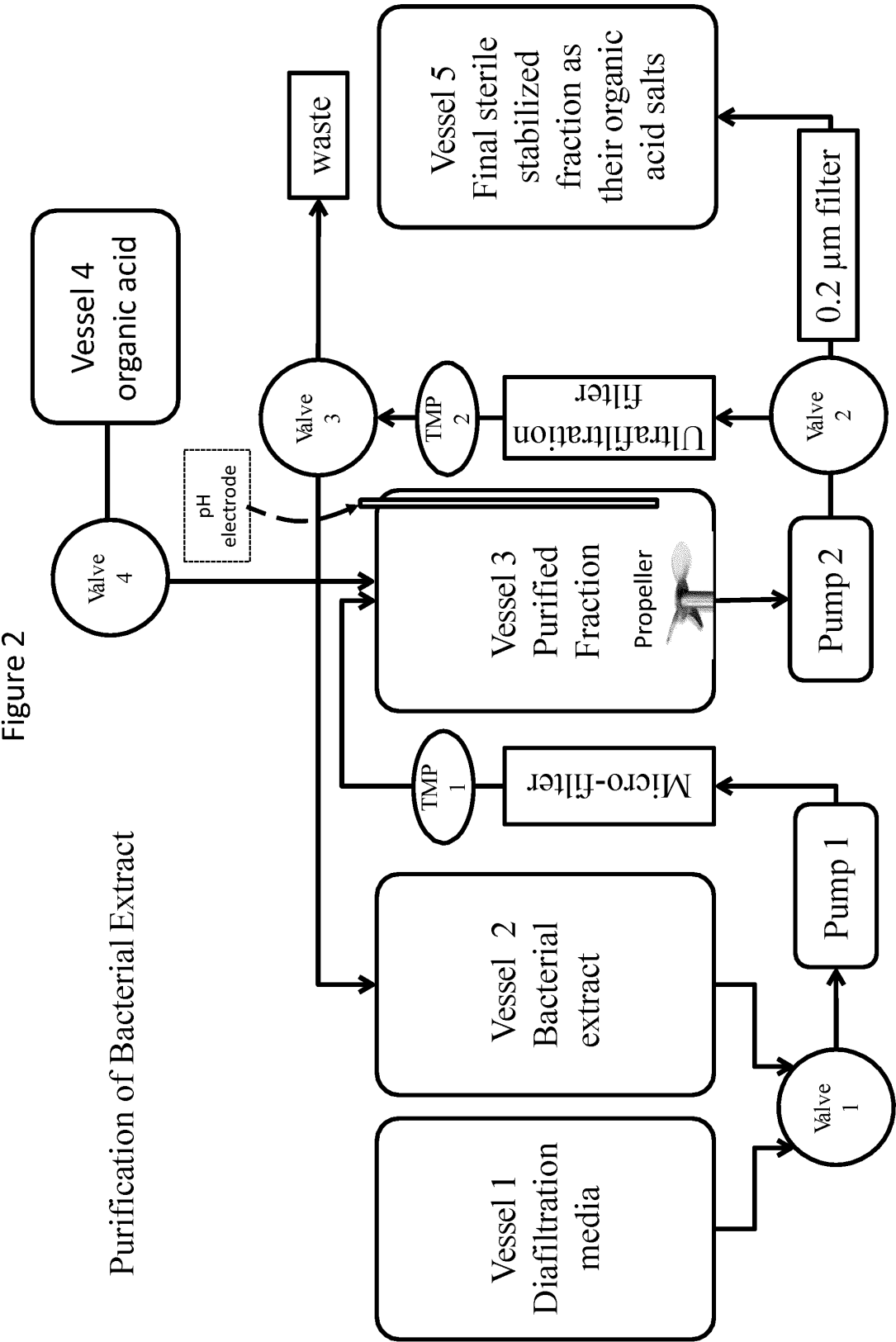


Figure 3

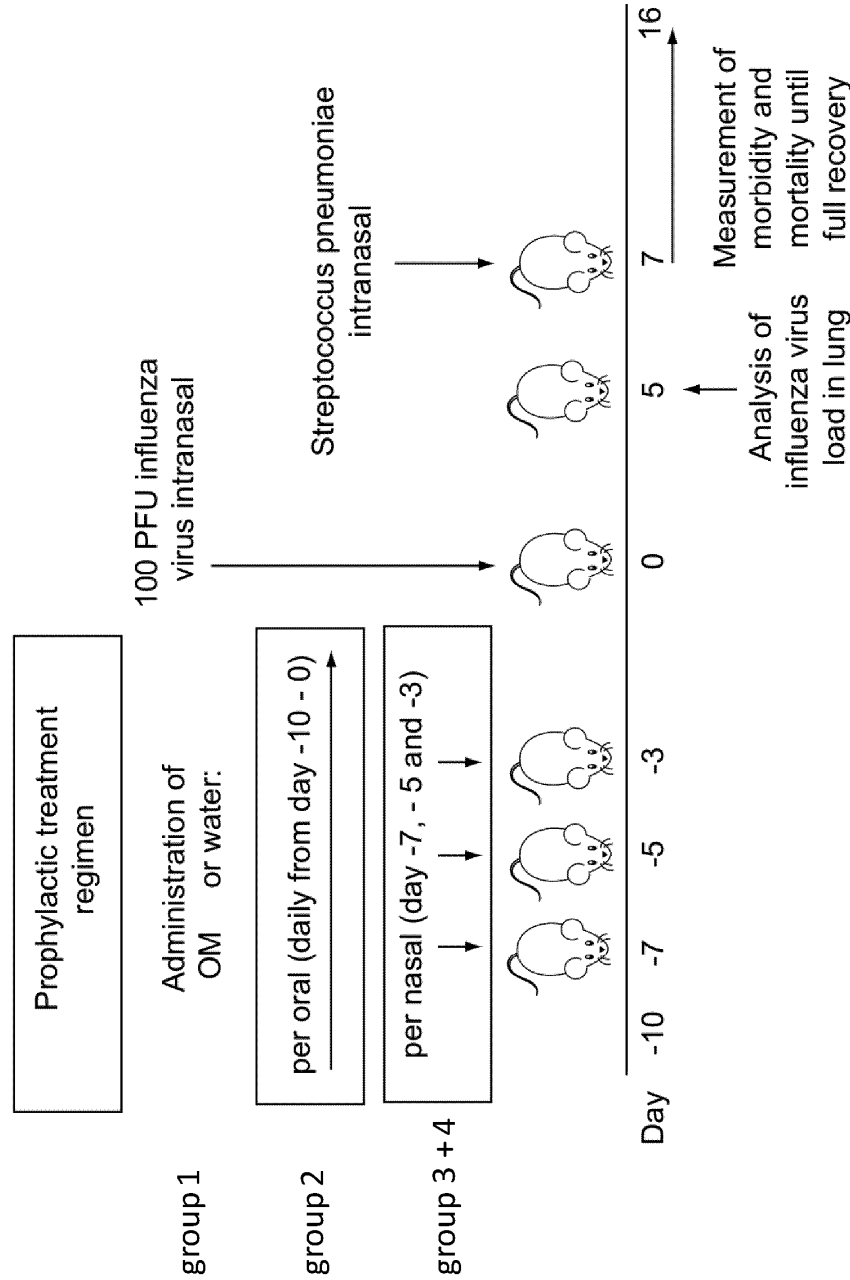


Figure 4

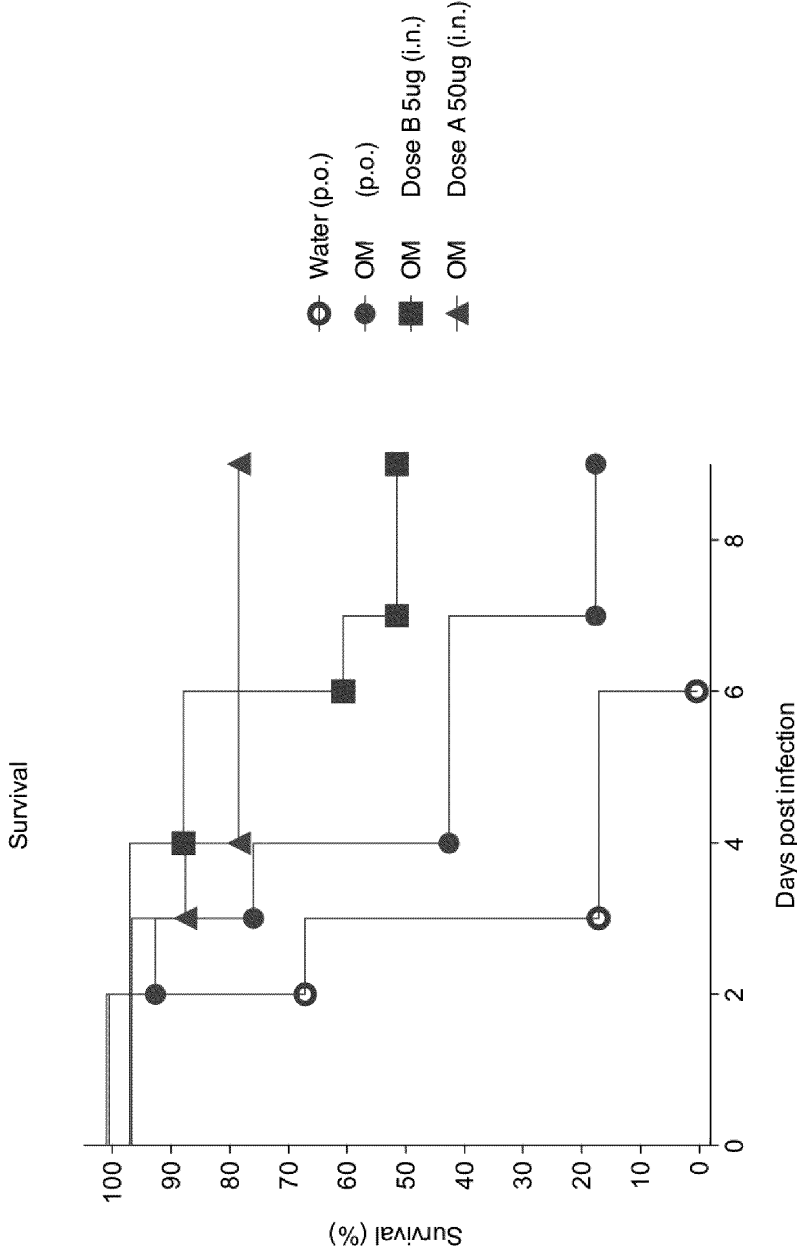


Figure 5

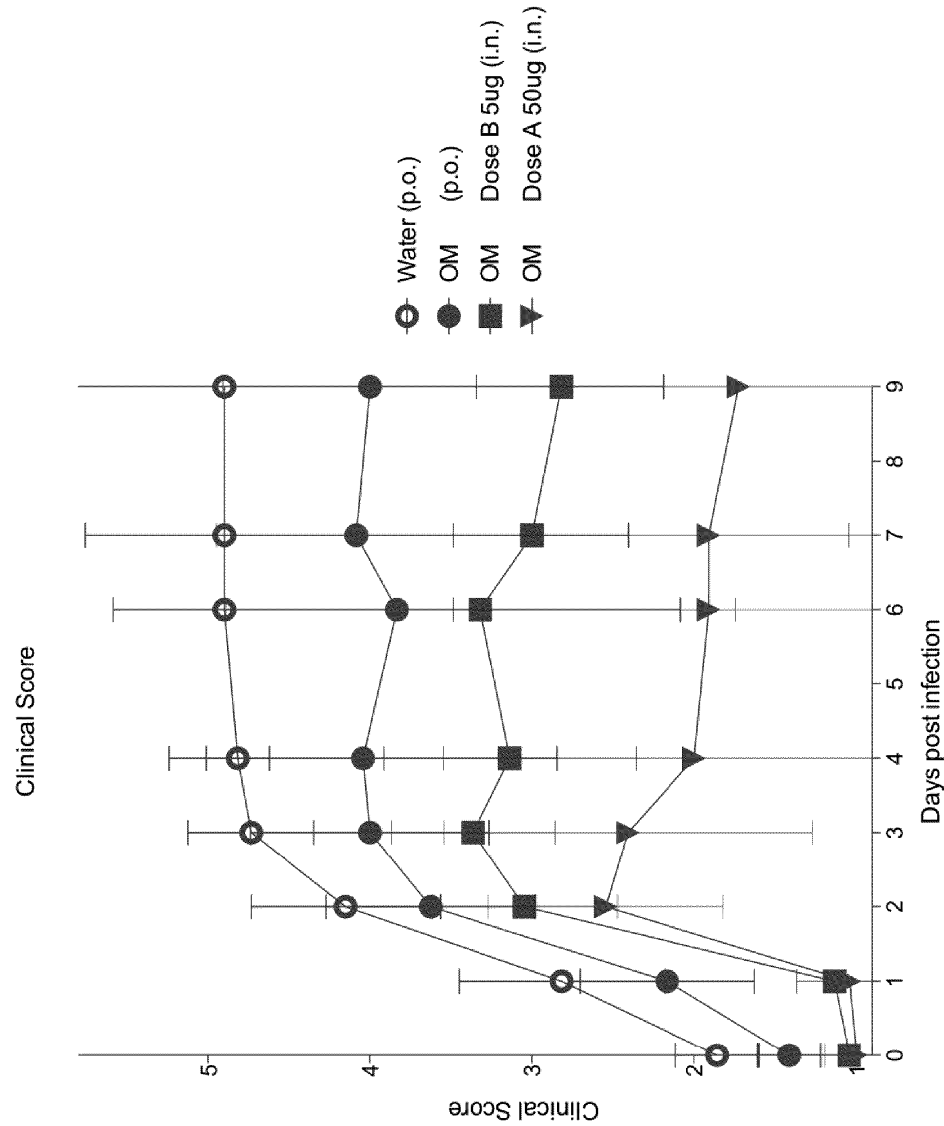


Figure 6

Study Day 8 (1 day post bacterial administration)		
Per oral treatment of OM (day -10 to 0)	Per nasal treatment of OM (day -7, -5 and -3)	(50ug)
		

Difference in Appearance

Figure 7

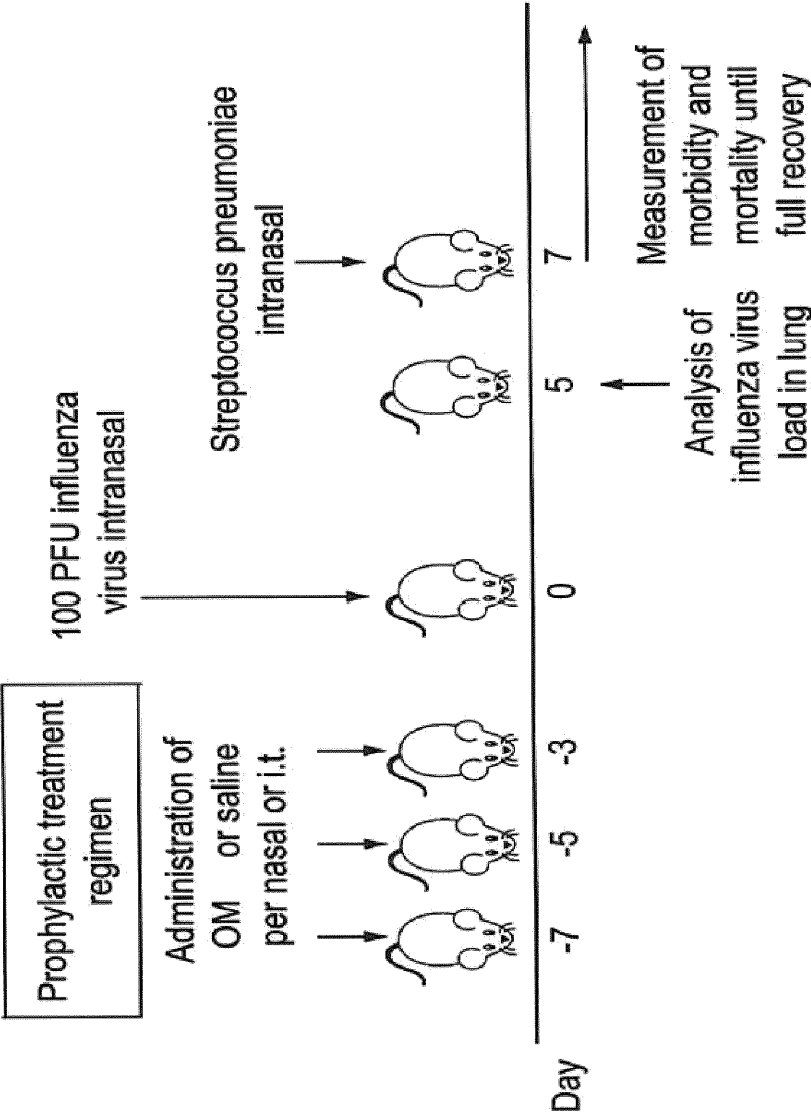


Figure 8
Lung influenza virus at day 5

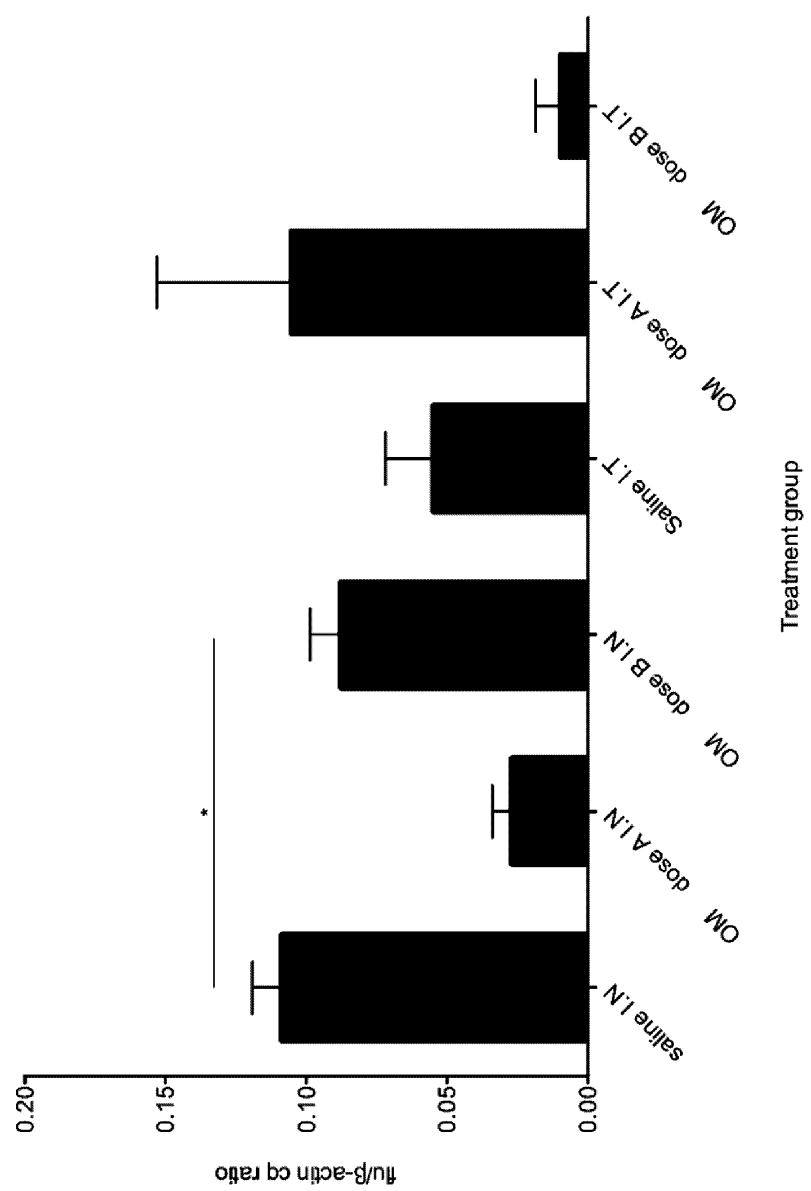


Figure 9

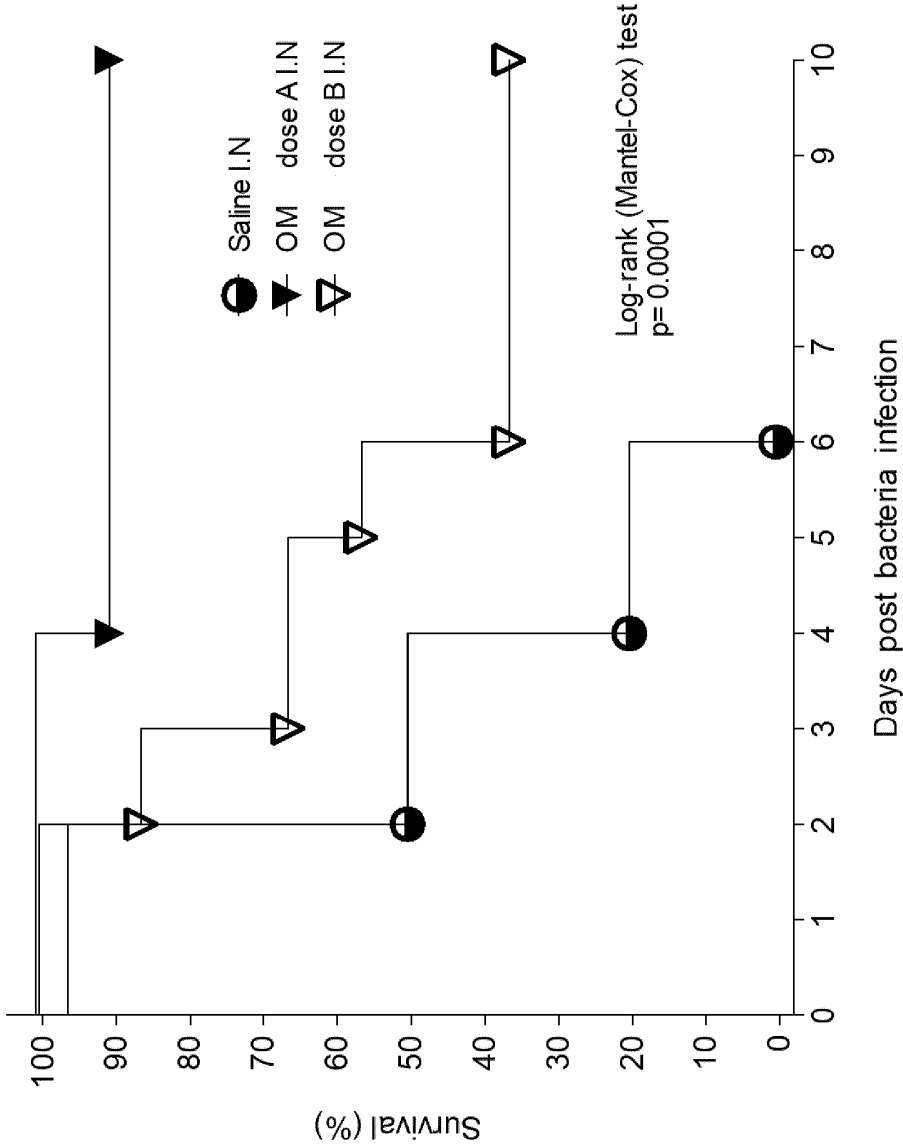


Figure 10

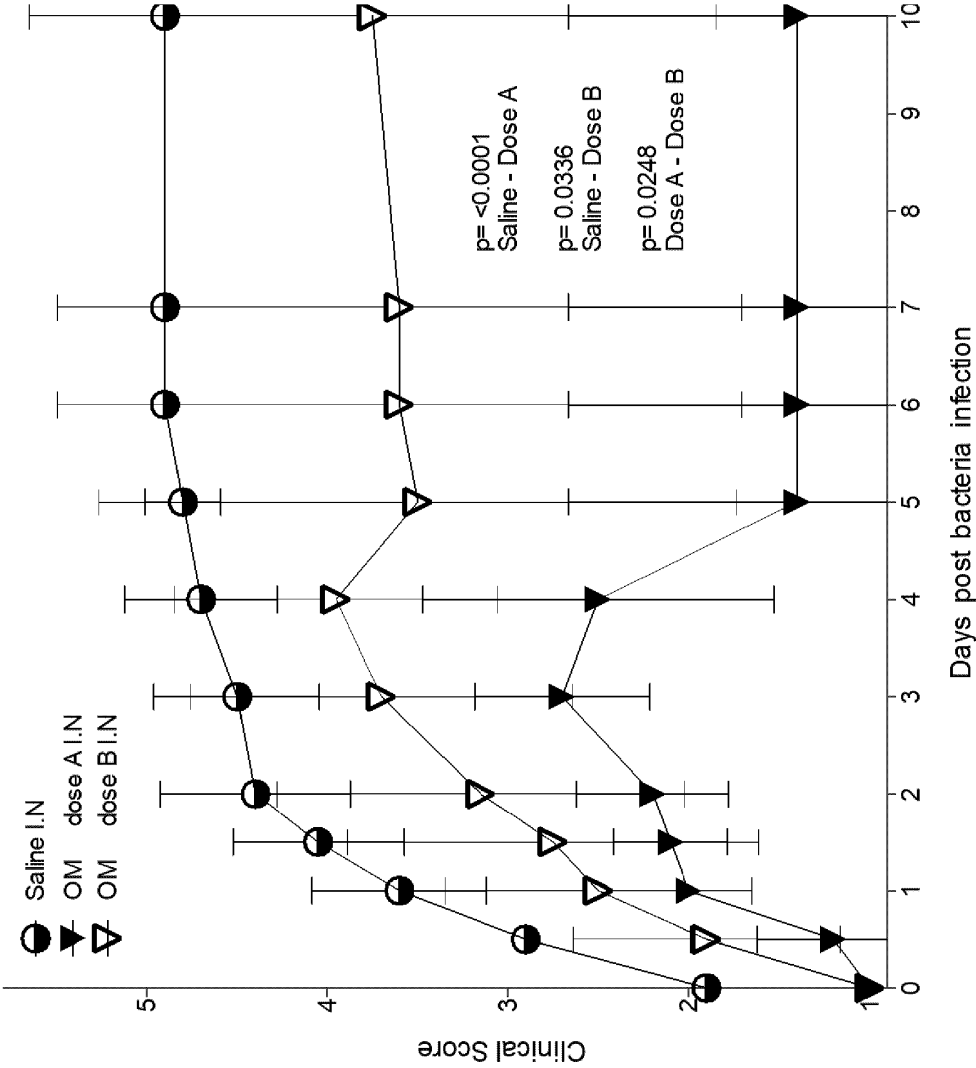


Figure 11

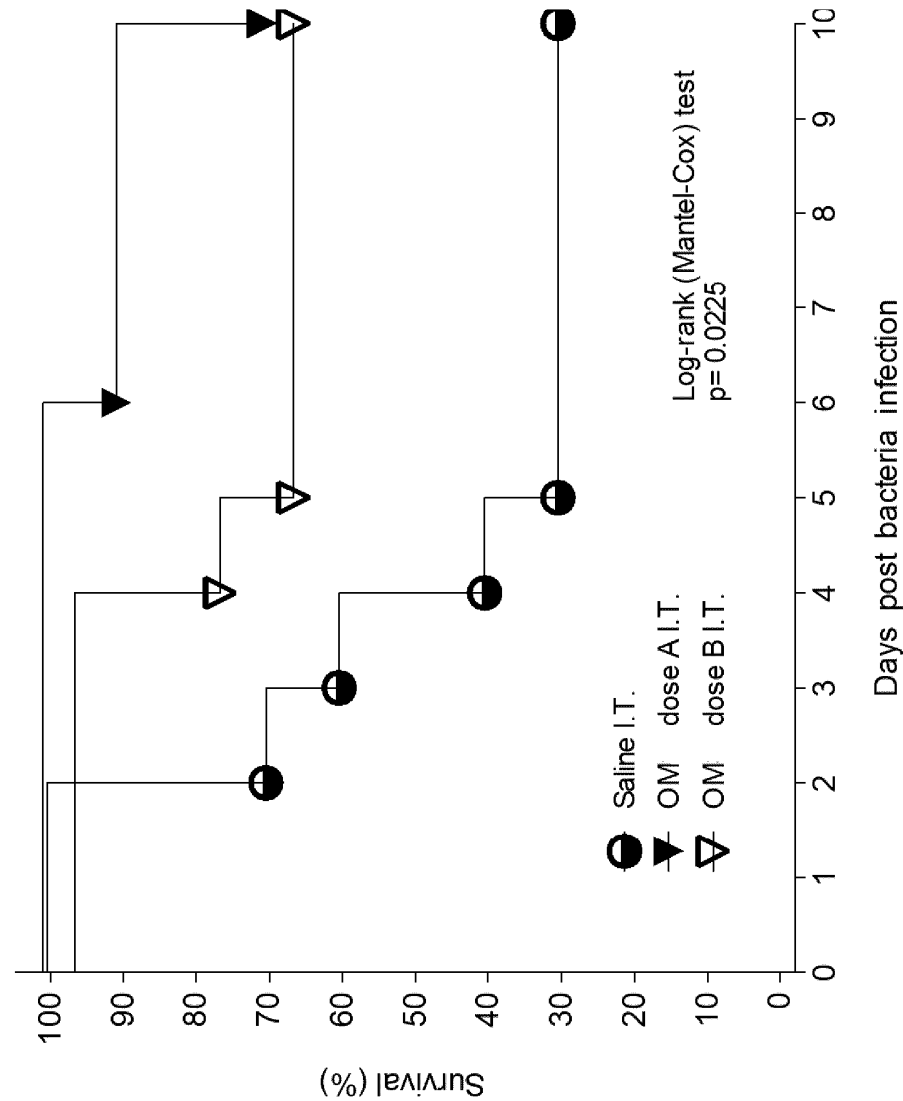


Figure 12

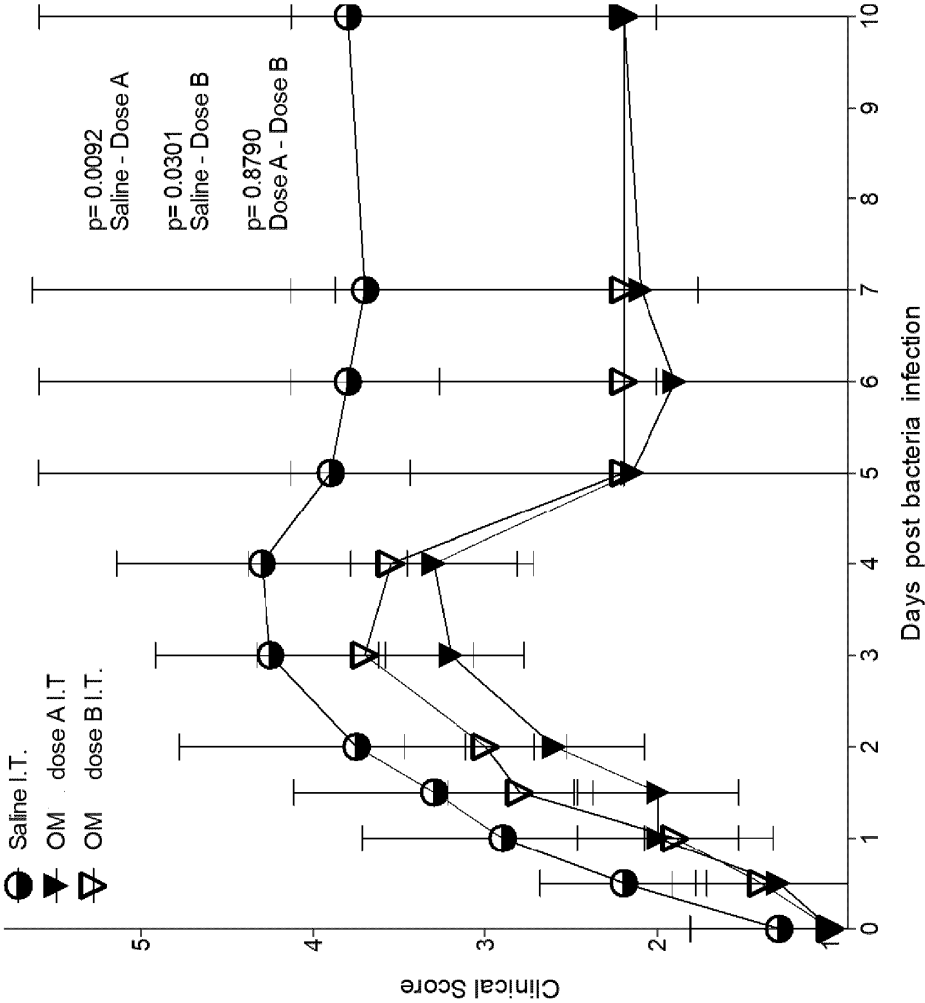


Figure 13

Number of mice per group = 10
Total number of mice = 130.

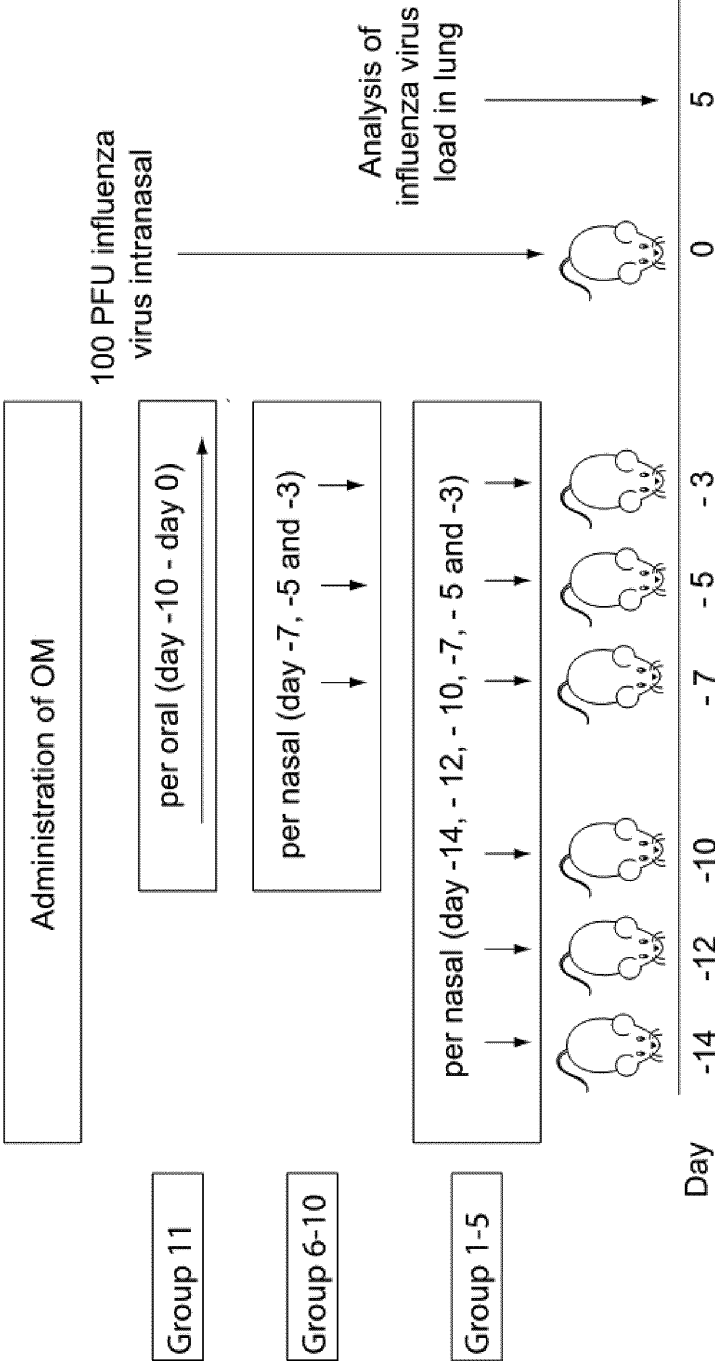


Figure 15

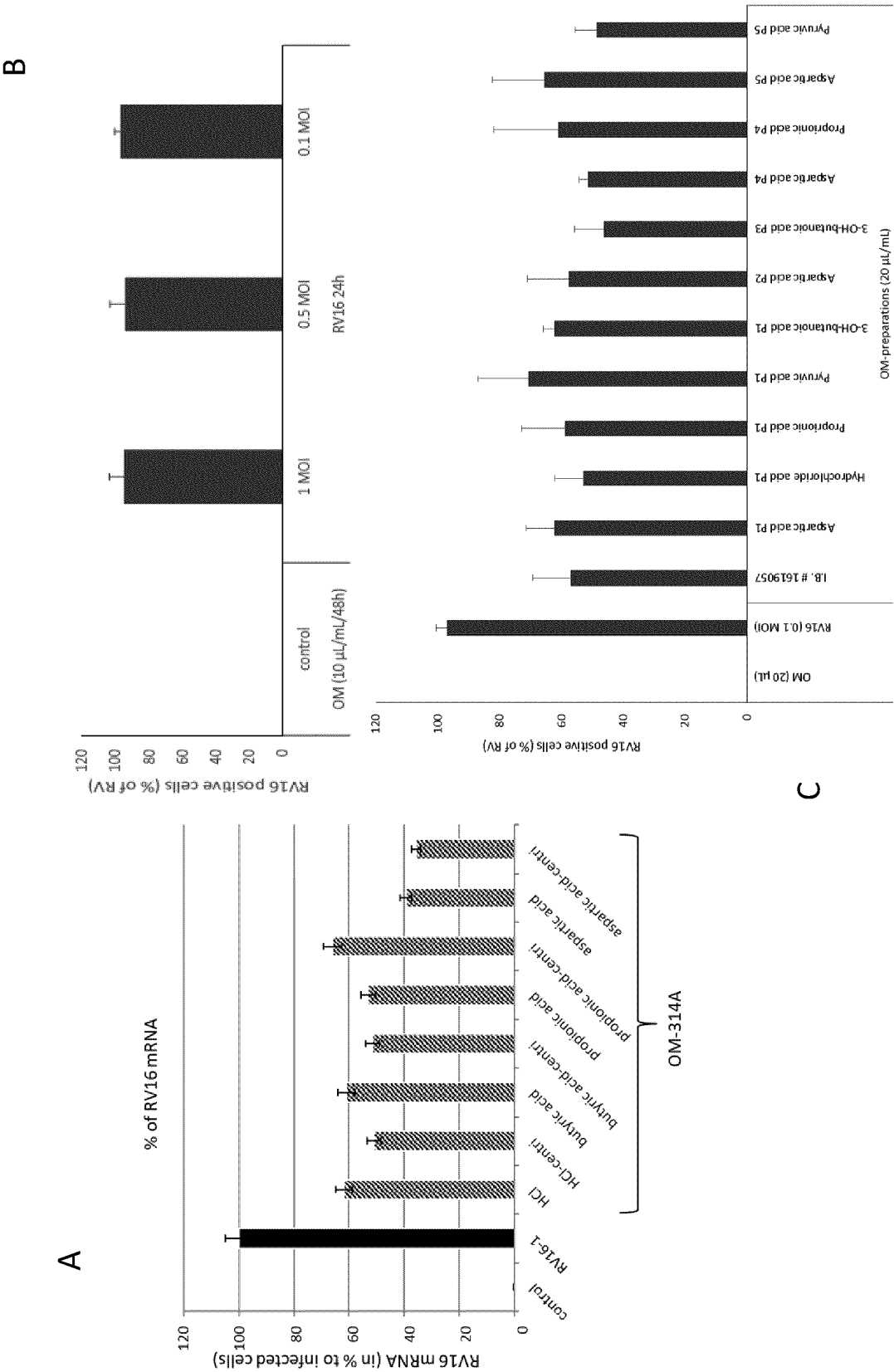


Figure 16

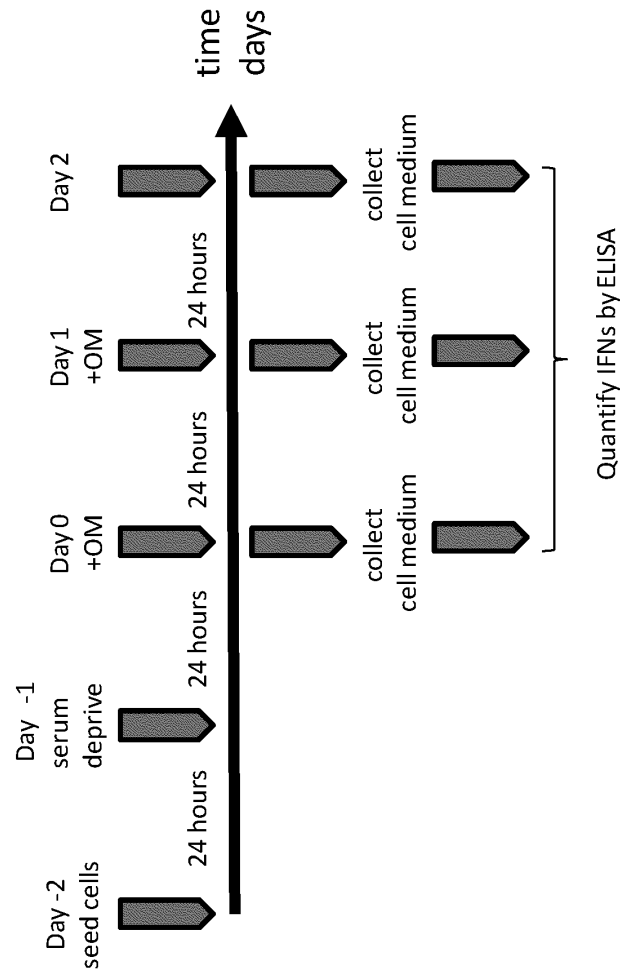
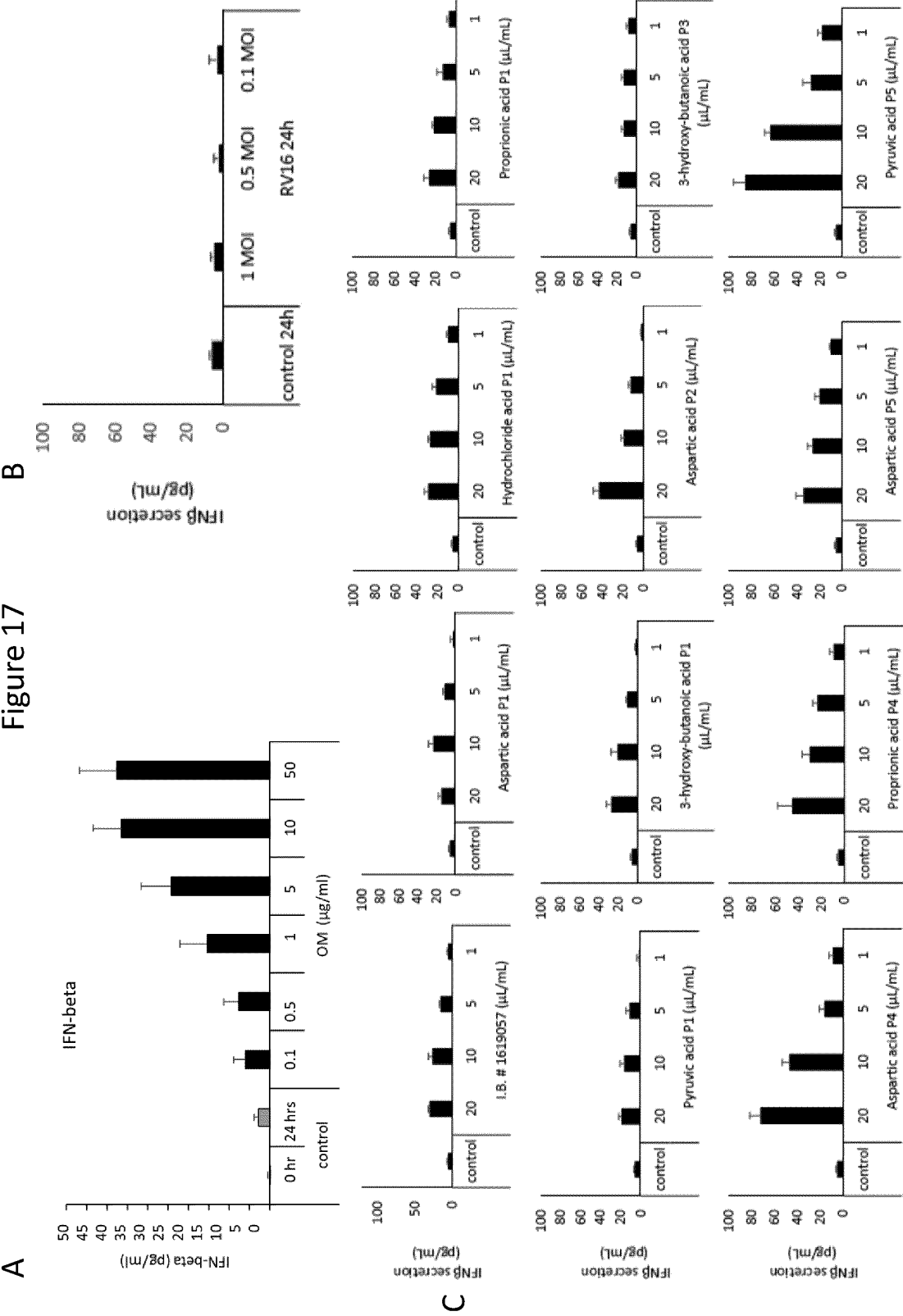
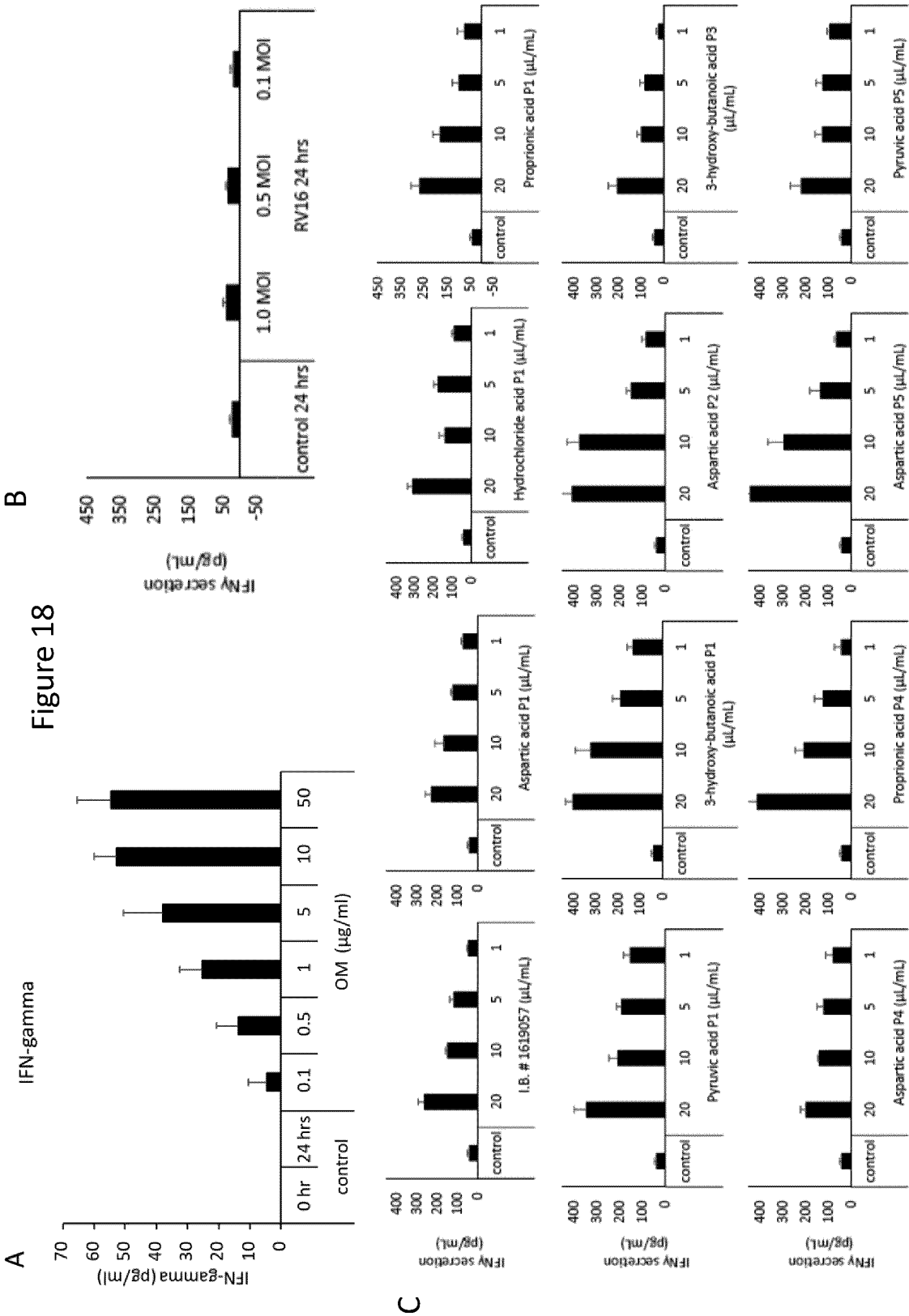


Figure 17





A

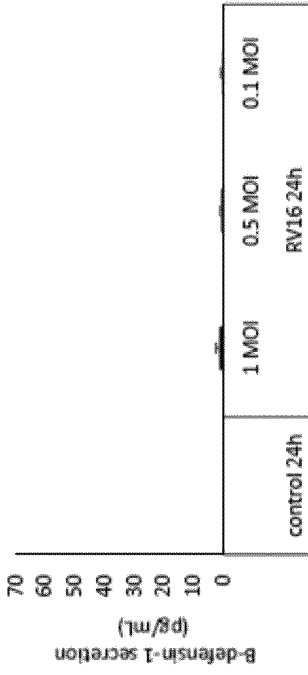
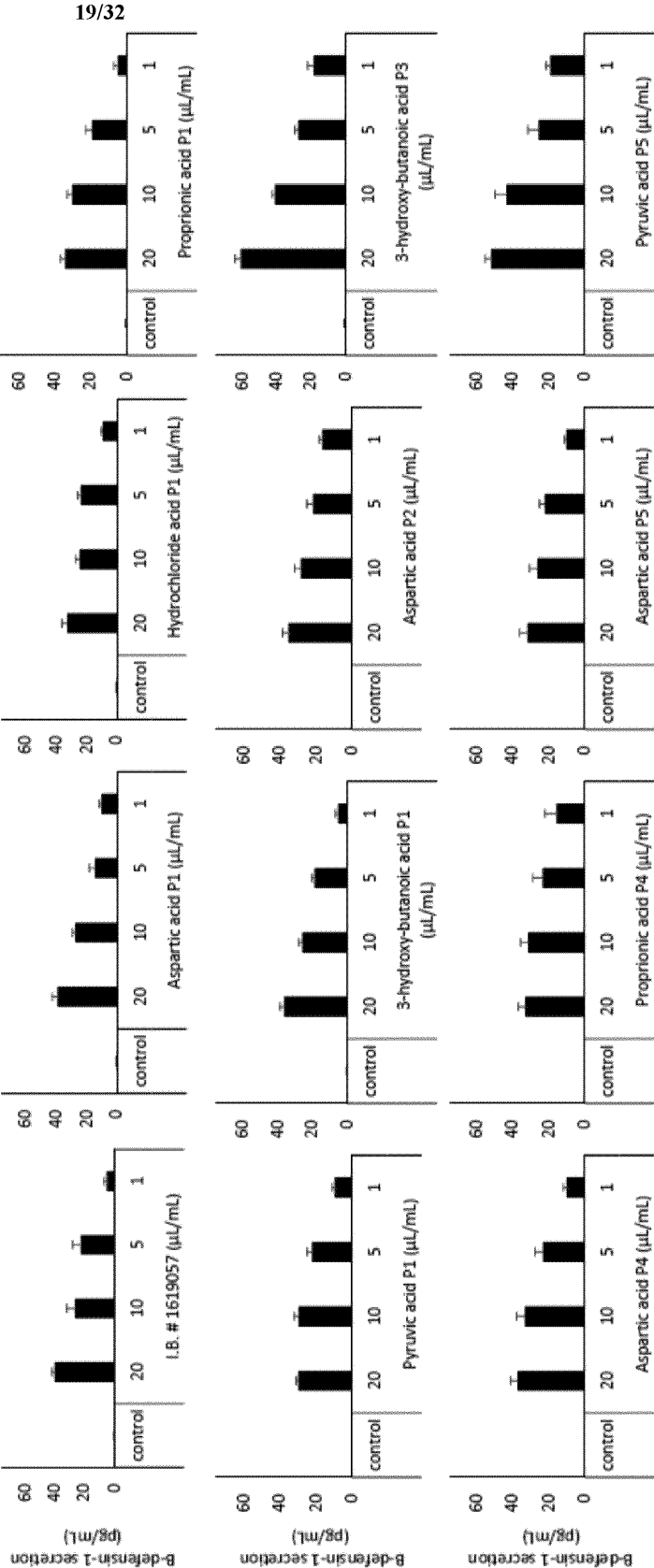
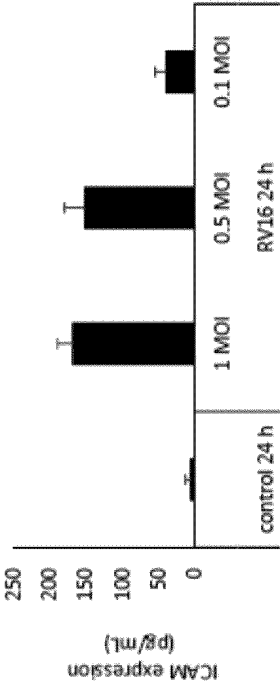


Figure 19

B



A



B

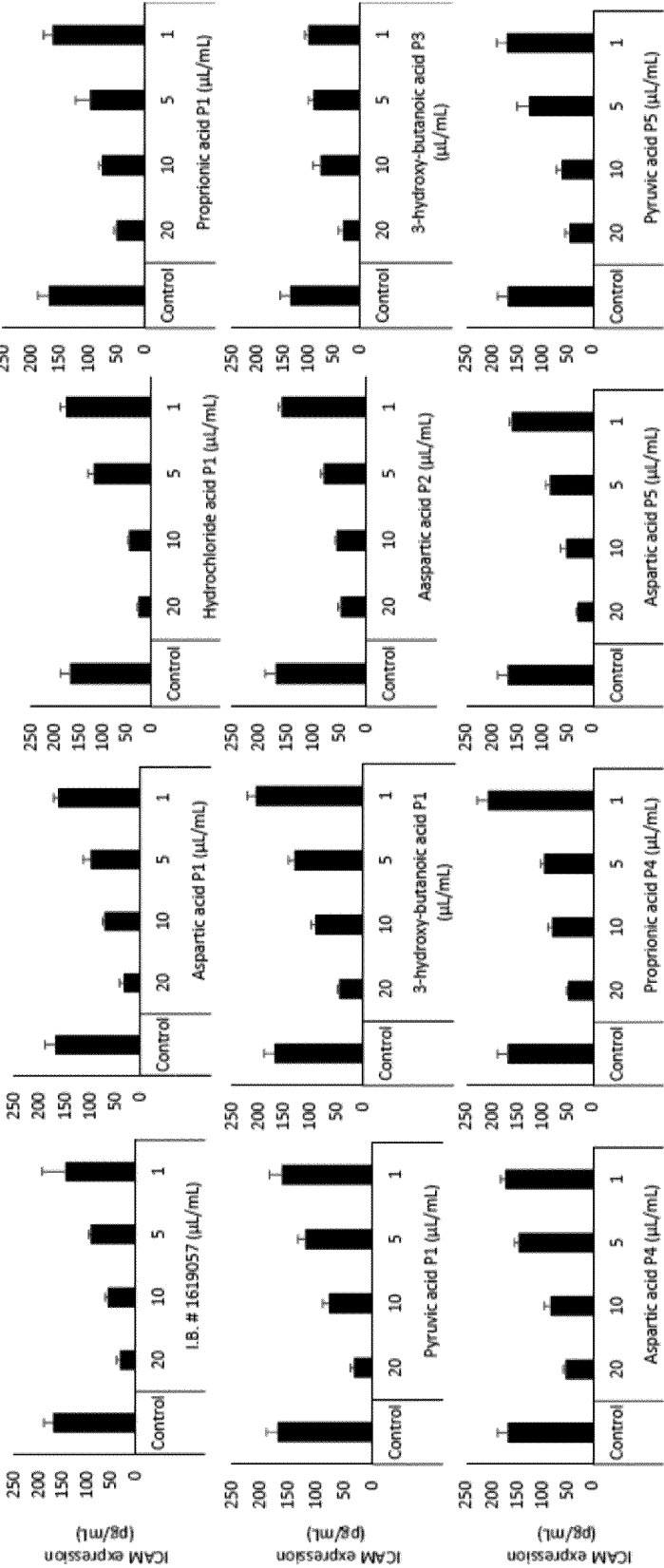


Figure 21

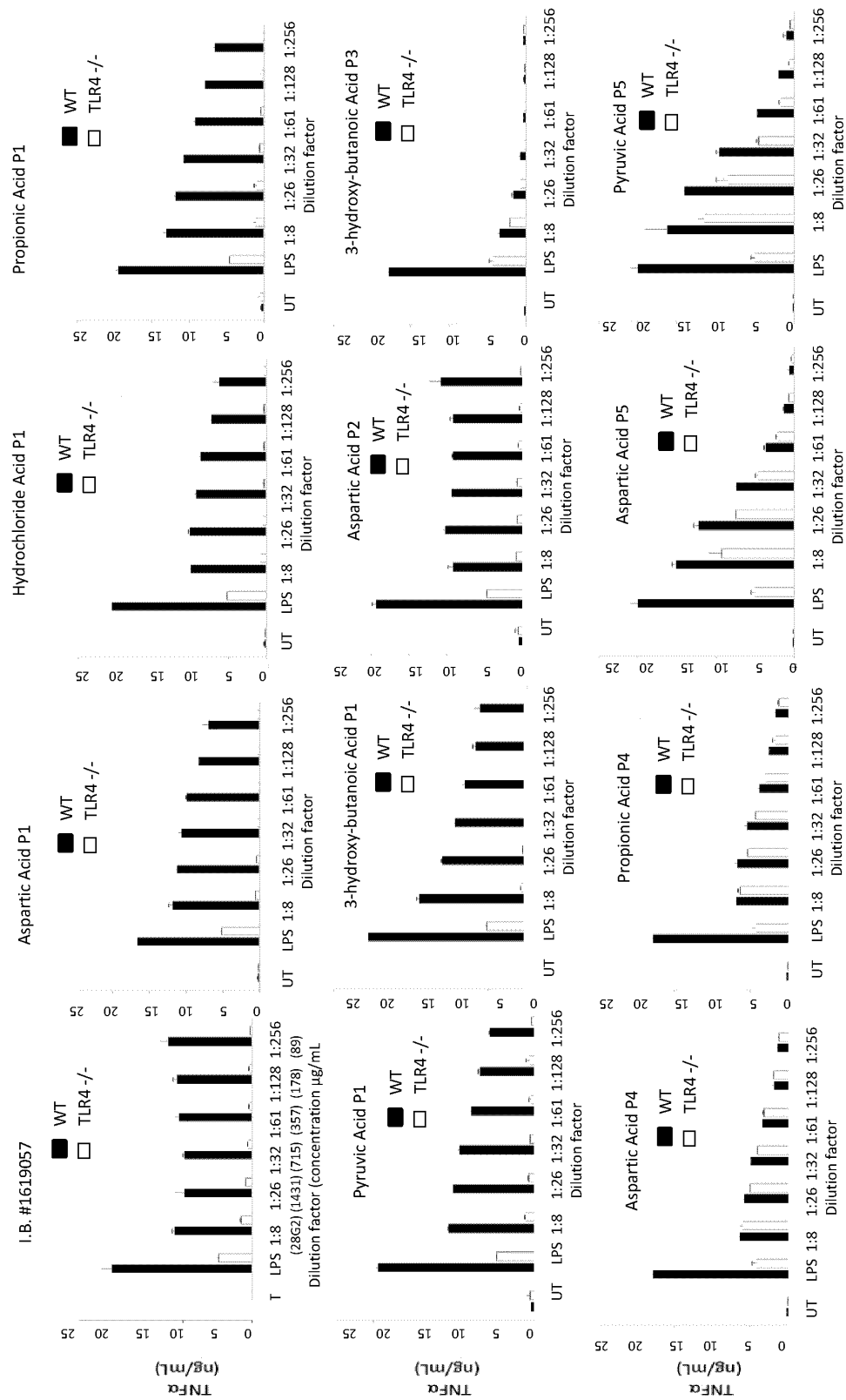


Figure 22

NCD-Sham	NCD-BE	HFD-Sham	HFD-BE
Muribaculaceae	Lachnospiraceae NK4A136 group	Firmicutes	Ruminococcaceae
Bacteroidales	Uncultured bacterium	Clostridiales	Uncultured bacterium
Bacteroidia	Clostridiales vadinBB60 group	Clostridia	Ruminiclostridium
Bacteroidetes	Tenericutes	Blautia	Verrucomicrobiales
Uncultured bacteria	Mollicutes		Verrucomicrobiae
Lachnospiraceae_bacterium COE1			Akkermansia
			Verrucomicrobia
			Akkermansiaceae
			Peptococcaceae
			Ruminiclostridium

Figure 23

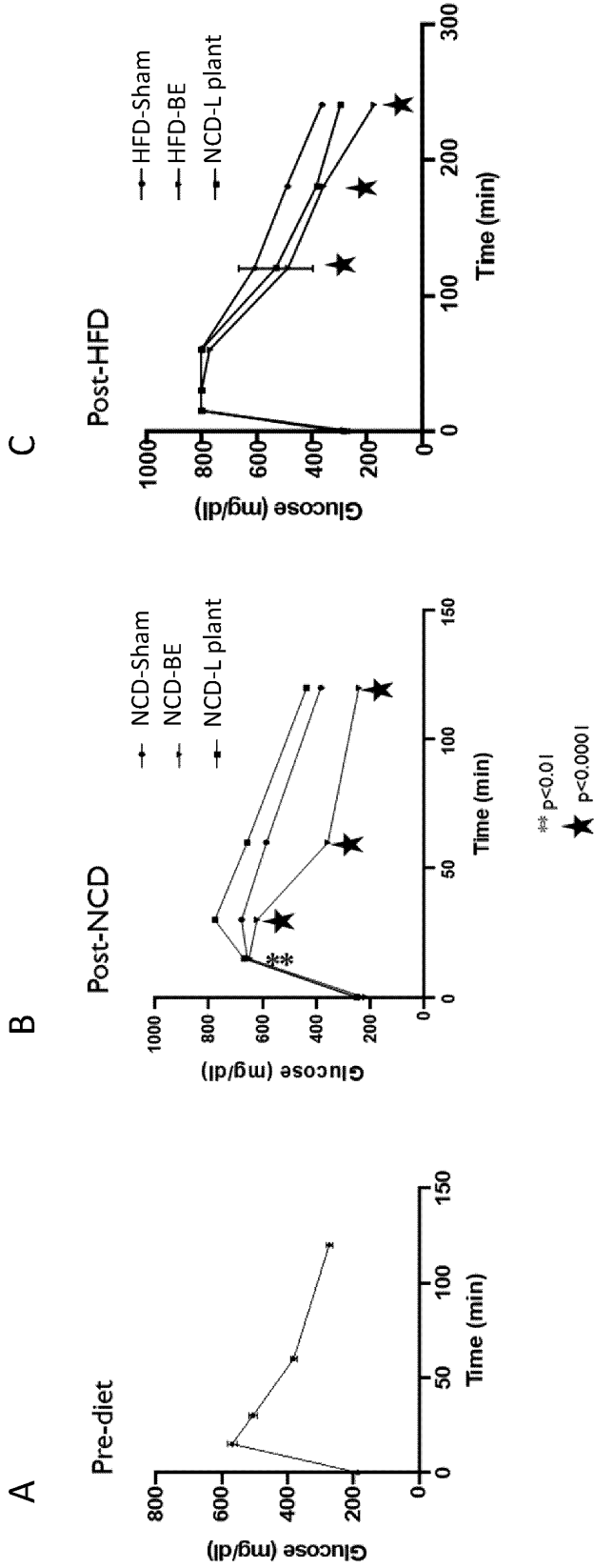


Figure 24

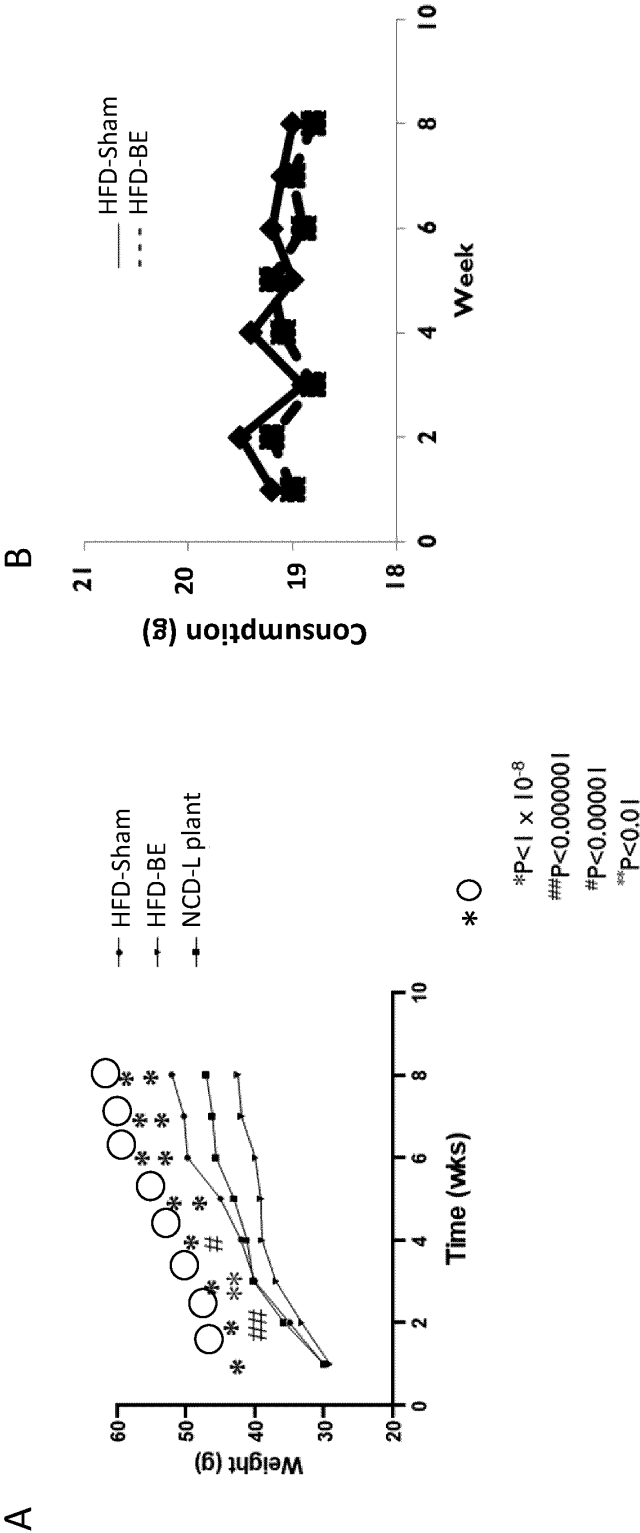


Figure 25

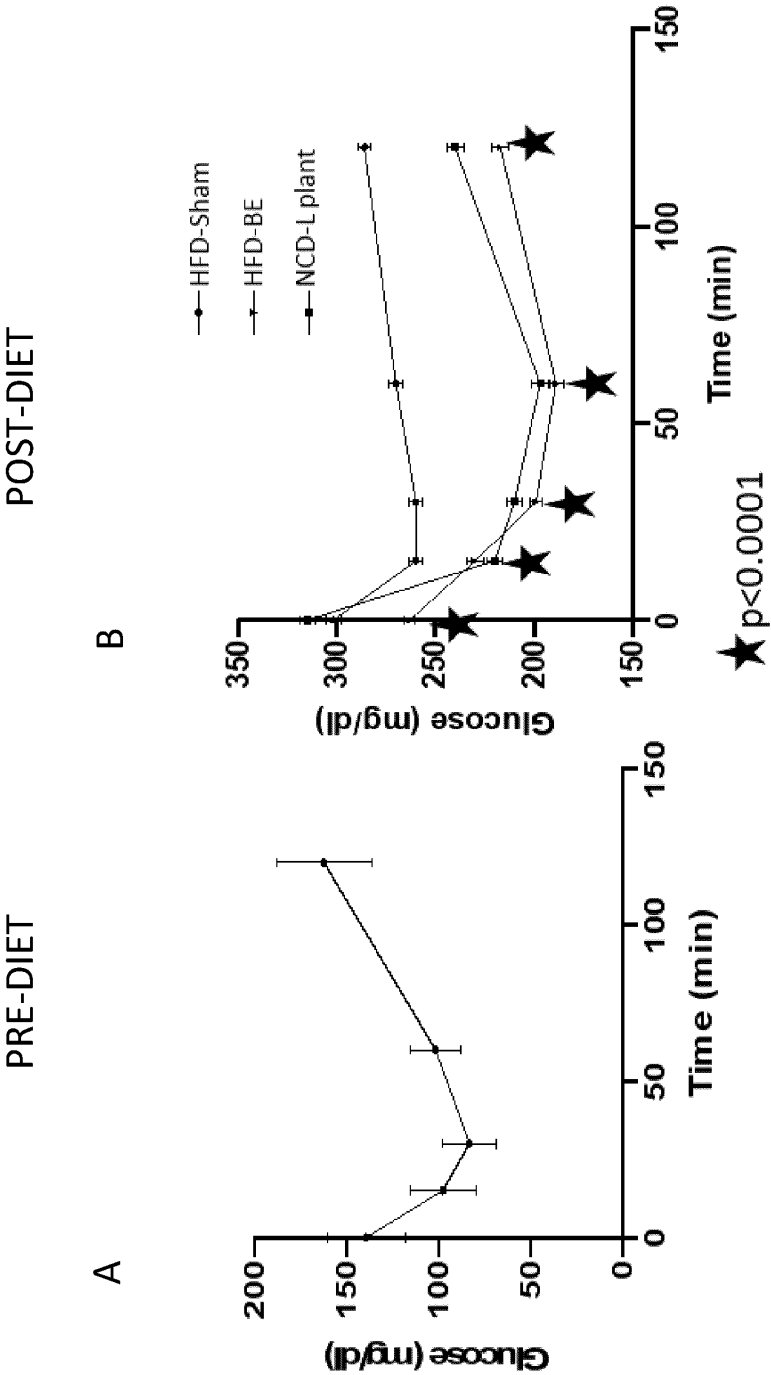


Figure 26

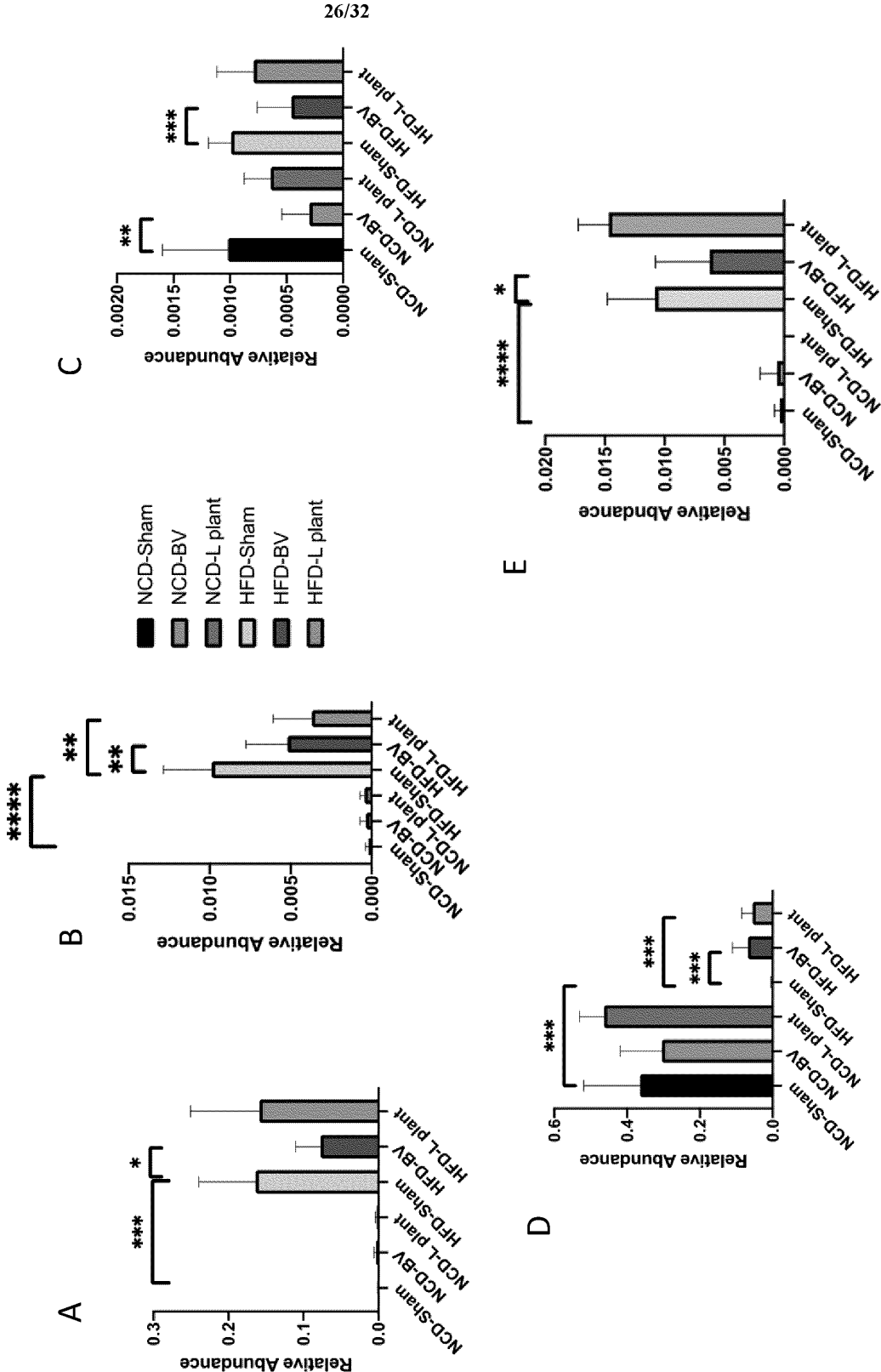


Figure 27

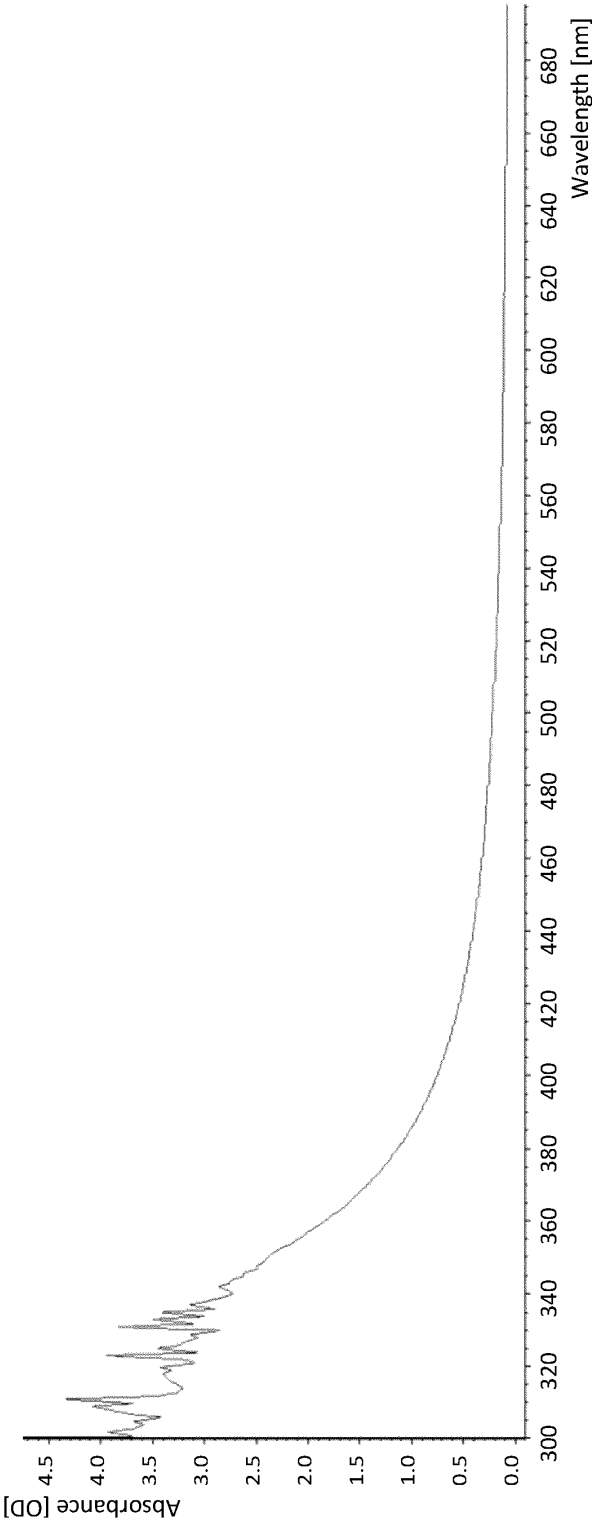


Figure 28

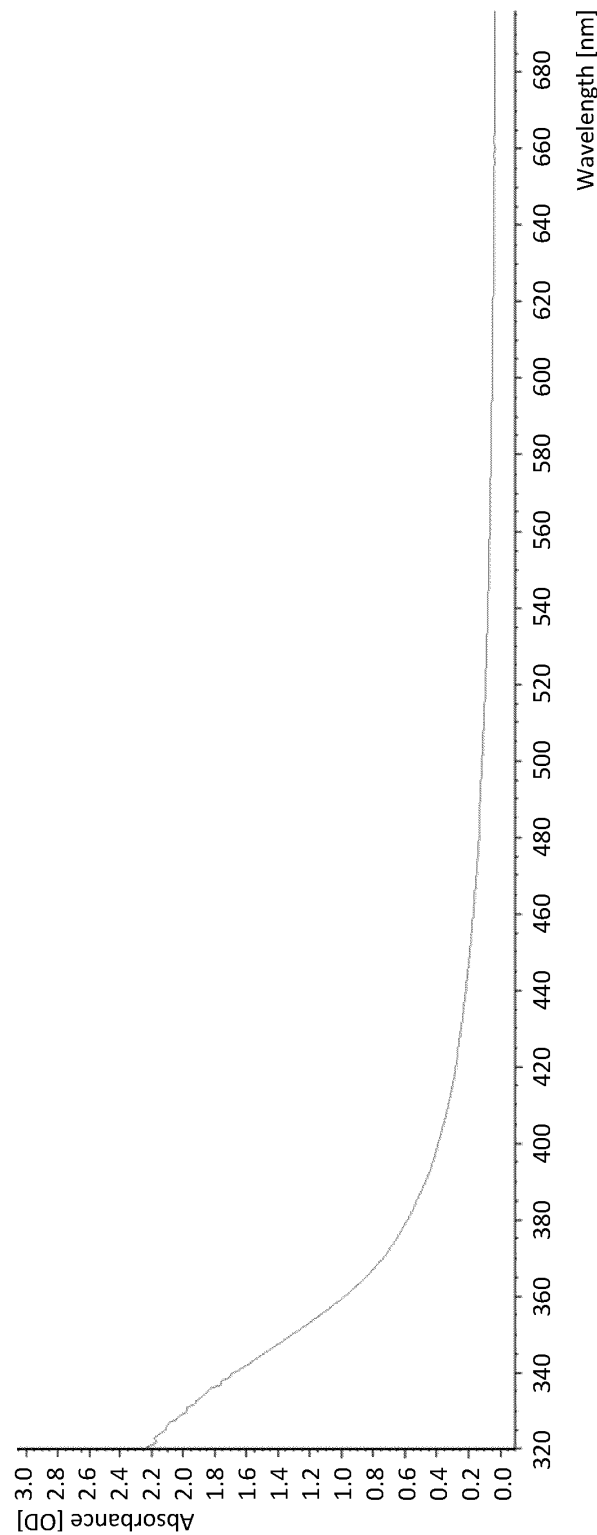
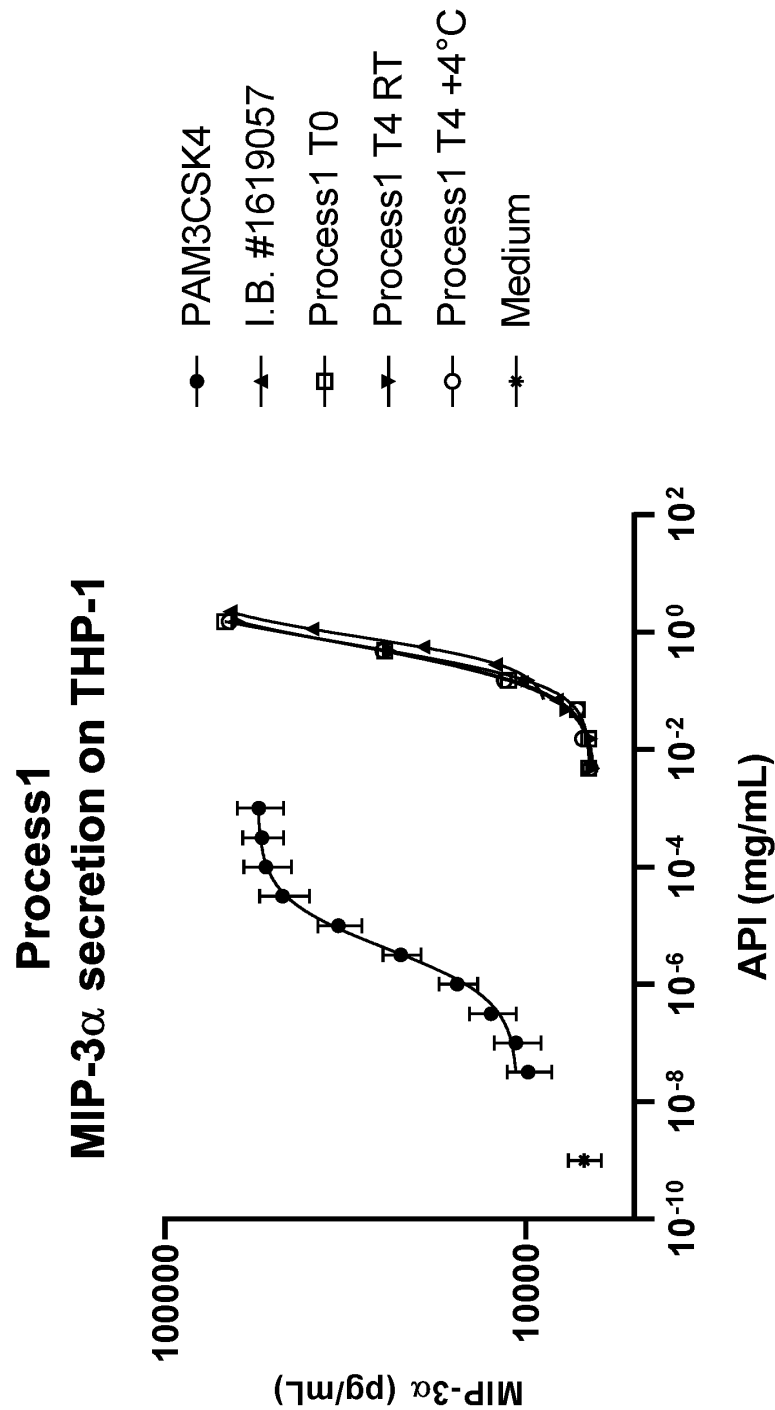
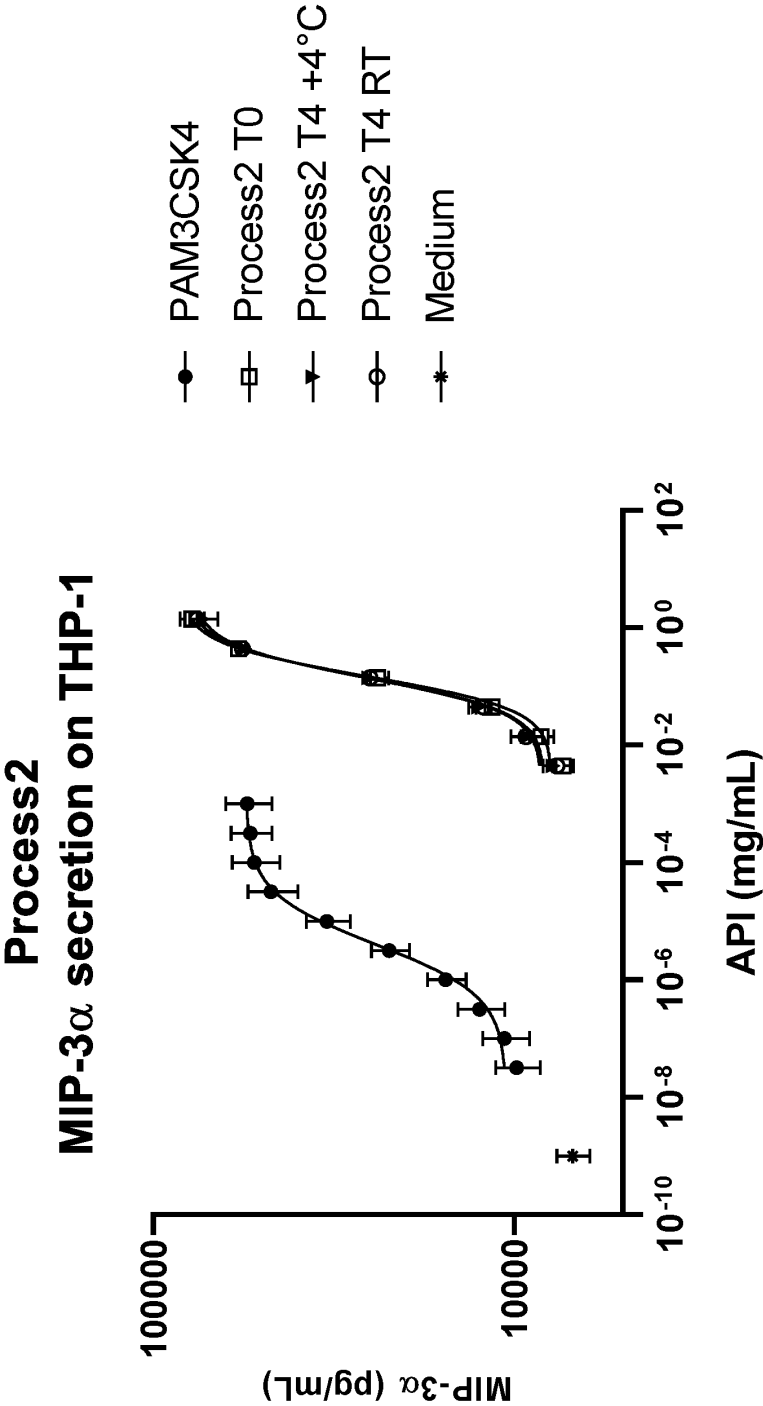


Figure 29



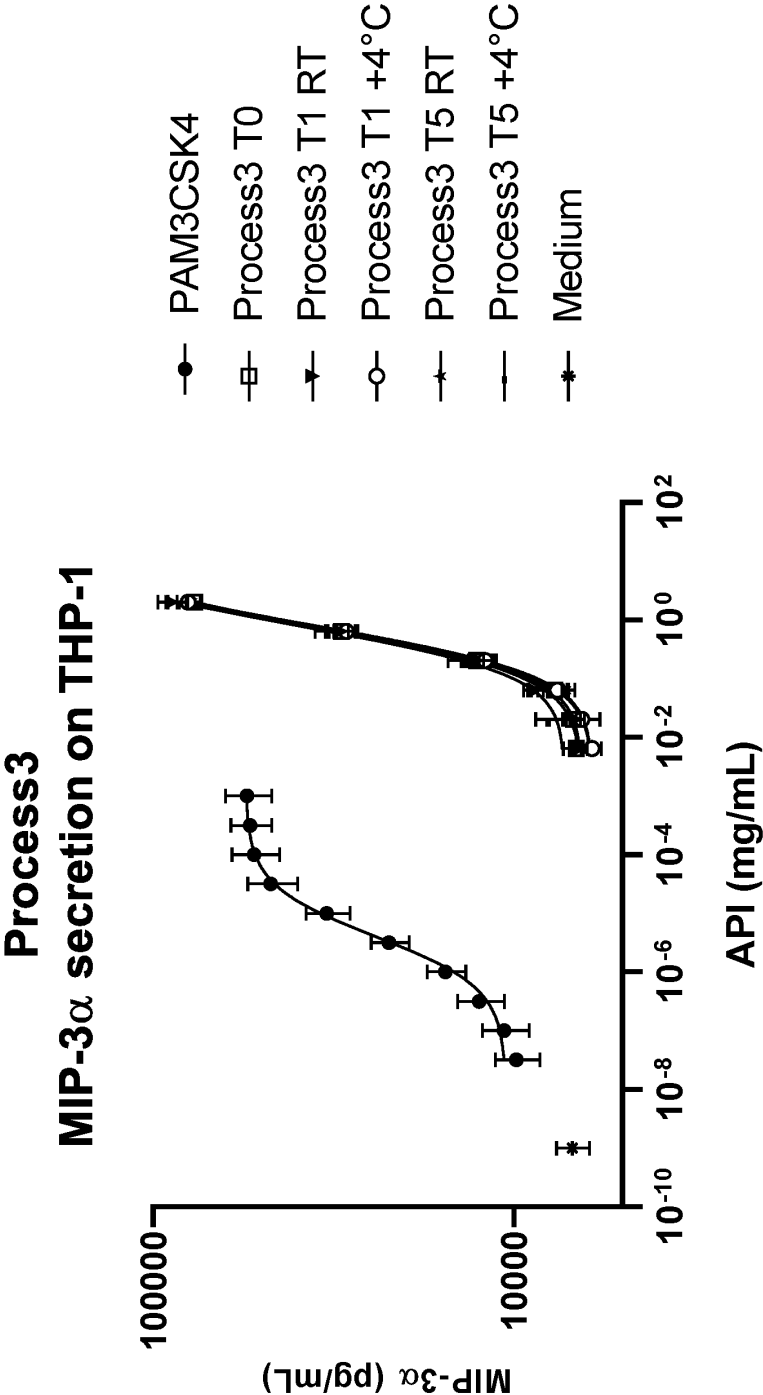
Process 1 – bioassay results during stability

Figure 30



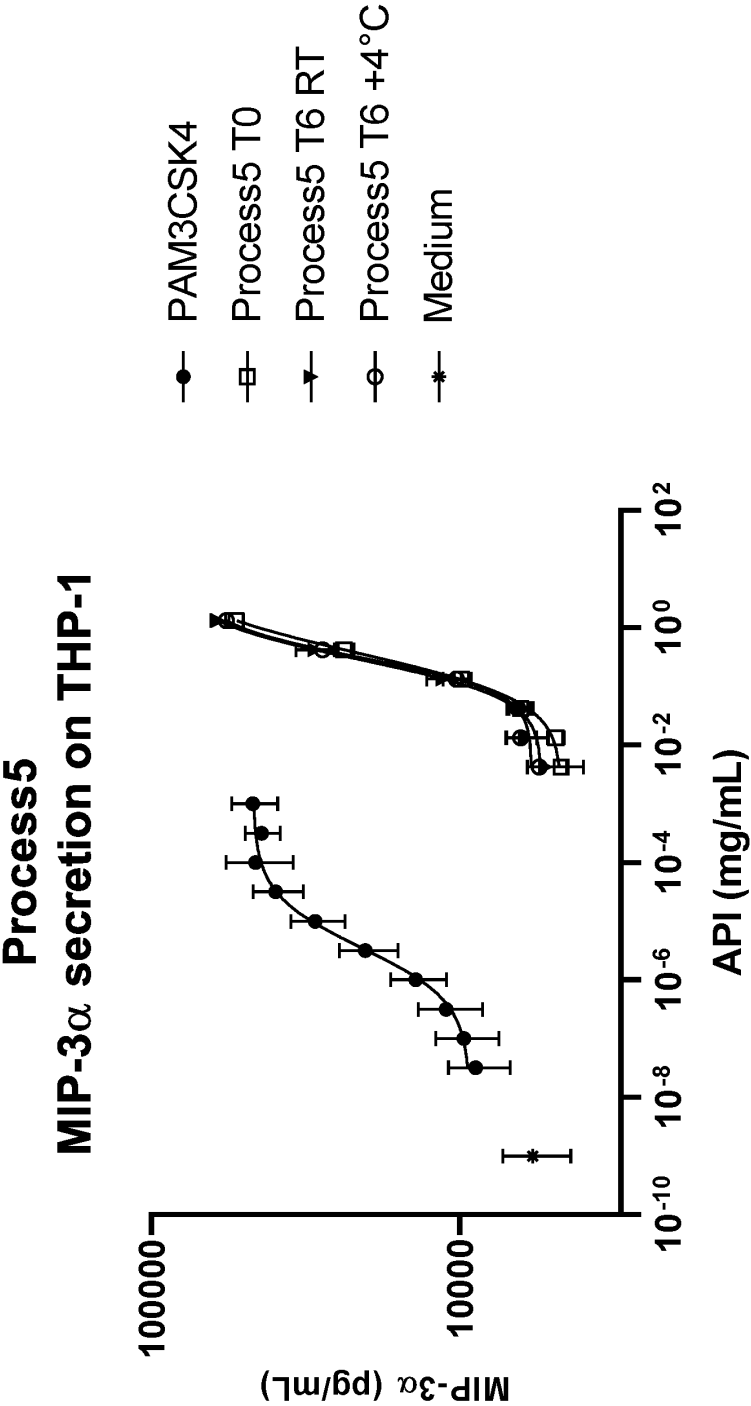
Process 2 – bioassay results during stability

Figure 31



Process 3 – bioassay results during stability

Figure 32



Process 5 – bioassay results during stability