

## SUPPLEMENTARY TABLES

**Supplementary Table S1.** Comparison of biomarkers and CT of Archaea according to the presence or absence of maternal antibiotic therapy and according to the mode of delivery.

Parameters	Peripartum maternal antibiotic therapy	p-value	Mode of delivery	p-value
CT Archaea	Yes	0.69	Cesarean section	0.90
	No		Vaginal delivery	
IgE	Yes	1	Cesarean section	0.98
	No		Vaginal delivery	
Tryptase	Yes	0.43	Cesarean section	0.48
	No		Vaginal delivery	
Calprotectin	Yes	0.70	Cesarean section	0.07
	No		Vaginal delivery	
EDN	Yes	0.83	Cesarean section	0.11
	No		Vaginal delivery	
TGF- $\beta$	Yes	0.10	Cesarean section	0.40
	No		Vaginal delivery	
IL-1 $\beta$	Yes	0.06	Cesarean section	0.61
	No		Vaginal delivery	
IL-10	Yes	0.004	Cesarean section	0.16
	No		Vaginal delivery	
IL-6	Yes	0.71	Cesarean section	0.71

**Supplementary Table S2.** Comparison of median CT of Archaea in preterm infants according to the presence or absence of allergic events during the first year of life.

Periods	CT Archaea		p-value
	Allergic events		
	Yes	No	
Meconium	37.7	36.3	0.98
Two-weeks	36.2	37.2	0.28
Four-weeks	37.9	37.8	0.88
Six-week	38.3	38.2	0.69

**Supplementary Table S3.** Comparison of median CTs of Archaea in preterm infants according to the presence or absence of atopic dermatitis during the first year of life.

Periods	CT Archaea		p-value
	Atopic dermatitis		
	Yes	No	
Meconium	36.3	36.7	0.66

<b>Two-weeks</b>	37.2	37.1	0.89
<b>Four-weeks</b>	37.9	37.7	0.96
<b>Six-week</b>	38.2	38.3	0.83