

SUPPLEMENTAL MATERIAL

TABLES

Table S1: Linear correlation between IGRA OD values after stimulation with antigens in two different concentrations (10 vs. 20 µg/mL)

Antigen	n	Correlation coefficient r^*	Significance level $P <$	LL CI for r	UL CI for r	Concentration selected (µg/mL)
L5P	72	0.5331	0.0001	0.3439	0.6807	10
Hyd L5P	72	0.8227	0.0001	0.7302	0.8856	10
Map 0268c	72	0.9003	0.0001	0.8449	0.9366	10
Map 0268c(it)	72	0.8149	0.0001	0.7189	0.8804	10
Map 1365	72	0.7633	0.0001	0.6458	0.8455	10
Map 3651cT(it)	72	0.9952	0.0001	0.9923	0.997	10
Map 4147	30	0.9527	0.0001	0.9021	0.9775	10
Map 2872c	30	0.9771	0.0001	0.9519	0.9892	10
Map 1589c	72	0.981	0.0001	0.9698	0.9881	10
Map 1653	72	0.959	0.0001	0.935	0.9742	10
Map 3651c	72	0.9949	0.0001	0.9919	0.9968	10
Map 1693c	72	0.9874	0.0001	0.9798	0.9921	10
Map 0210c	72	0.9962	0.0001	0.9939	0.9976	10
Map 4000c	72	0.839	0.0001	0.7538	0.8964	10
Map 2020	72	0.9786	0.0001	0.9659	0.9866	10

*Pearson's correlation coefficient; LL CI lower limit of the confidence interval; UL CI upper limit of the confidence interval.

IFN- γ response of goats to Map antigens

Table S2: Intensity of faecal shedding of MAH and MAP in the course of the study.

Group	Animal No.	ai	1 dpi	3-6 wpi	7-10 wpi	11-14 wpi	15-18 wpi	19-22 wpi	23-26 wpi	27-30 wpi	31-34 wpi	35-40 wpi	41-44 wpi	45-48 wpi
Control	0045	0	0	0	0	0	0	0	0	0	0	0	0	0
	0046	0	0	0	0	0	0	0	0	0	0	0	0	0
	0047	0	0	0	0	0	0	0	0	0	0	0	0	0
	0049	0	0	0	0	0	0	0	0	0	0	0	0	0
	0050	0	0	0	0	0	0	0	0	0	0	0	0	0
	0051	0	0	0	0	0	0	0	0	0	0	0	0	0
	0052	0	0	0	0	0	0	0	0	0	0	0	0	0
	0054	n.a.	0	0	0	0	0	0	0	0	0	0	0	0
MAH	0024	0	+ ^s	0	0	0	0	0	0	0	0	0	0	0
	0027	0	+	c	0	0	0	0	0	0	0	0	0	0
	0029	n.a.	+	+	0	0	0	0	0	0	0	0	0	0
	0033	0	+	0	0	0	0	0	0	0	0	0	0	0
	0034	0	+	+	0	0	0	0	0	0	0	0	0	0
	0036	0	++	++	0	0	0	0	0	0	0	0	0	0
	0039	0	+++++	0	0	0	0	0	0	0	0	0	0	0
	0041	0	+	0	0	0	0	0	0	0	0	0	0	0
MAP	0005	0	0	++	+	0	+	+	+	+	+	+	++	+
	0007	0	0	++	+	0	0	0	0	0	0	0	0	0
	0011	0	0	+	+	++++	++++	+	+	++	++	+++++	+++++	++++
	0012	0	0	++	++	+++	+++	++	++	++	++	++	+	+
	0016	0	0	++	+	+	0	+	0	+	0	0	0	0
	0020	0	+	++	+	+++	+++++	+++	+	0	0	+	0	0
	0021	0	+	+	+++	++++	++	+	+	+	+	+	0	0
	0023	0	0	+	+	+	++	++++	+	+	0	0	0	0

ai before inoculation; n.a. sample not available; c culture contaminated;

^scolony growth score: 0 no growth, + GI ≤ 15.0 , ++ GI $> 15.0 \leq 30.0$, +++ GI $> 30.0 \leq 45.0$, ++++ GI $> 45.0 \leq 60.0$, +++++ GI > 60.0 .

Colony growth was scored using the growth indices (GI) calculated as described by Köhler et al. (28). In brief, colony counts were estimated semi-quantitatively by a colony score (CS) from 1 to 5, with 1 = 0 – 10; 2 = 11 – 20; 3 = 21 – 50; 4 = 51 – 100 individual colonies per slope; 5 = bacterial lawn, and the week of appearance (WA) was recorded. To correct for the time until colonies became visible, a growth index (GI) allowing a numerical estimation of the bacterial concentration in the samples was calculated by the formula: $GI = CS \times 100/WA$. The mean GI of the four corresponding slopes was determined.

Table S3: Rank correlation between IFN- γ responses after re-stimulation with Johnin and selected Map antigens

Antigen		Map 0210c		Map 1693c		Map 2020		Map 3651c		Map 3651cT(it)	
	n	ρ^*	$P<$	ρ	$P<$	ρ	$P<$	ρ	$P<$	ρ	$P<$
Johnin	24	0.768	0.0001	0.746	0.0001	0.743	0.0001	0.831	0.0001	0.814	0.0001
Map 0210c	24	-	-	0.795	0.0001	0.657	0.0005	0.657	0.0005	0.853	0.0001
Map 1693c	24	0.795	0.0001	-	-	0.807	0.0001	0.806	0.0001	0.900	0.0001
Map 2020	24	0.657	0.0005	0.807	0.0001	-	-	0.885	0.0001	0.845	0.0001
Map 3651c	24	0.657	0.0005	0.806	0.0001	0.885	0.0001	-	-	0.851	0.0001

*Spearman rank correlation coefficient

FIGURES

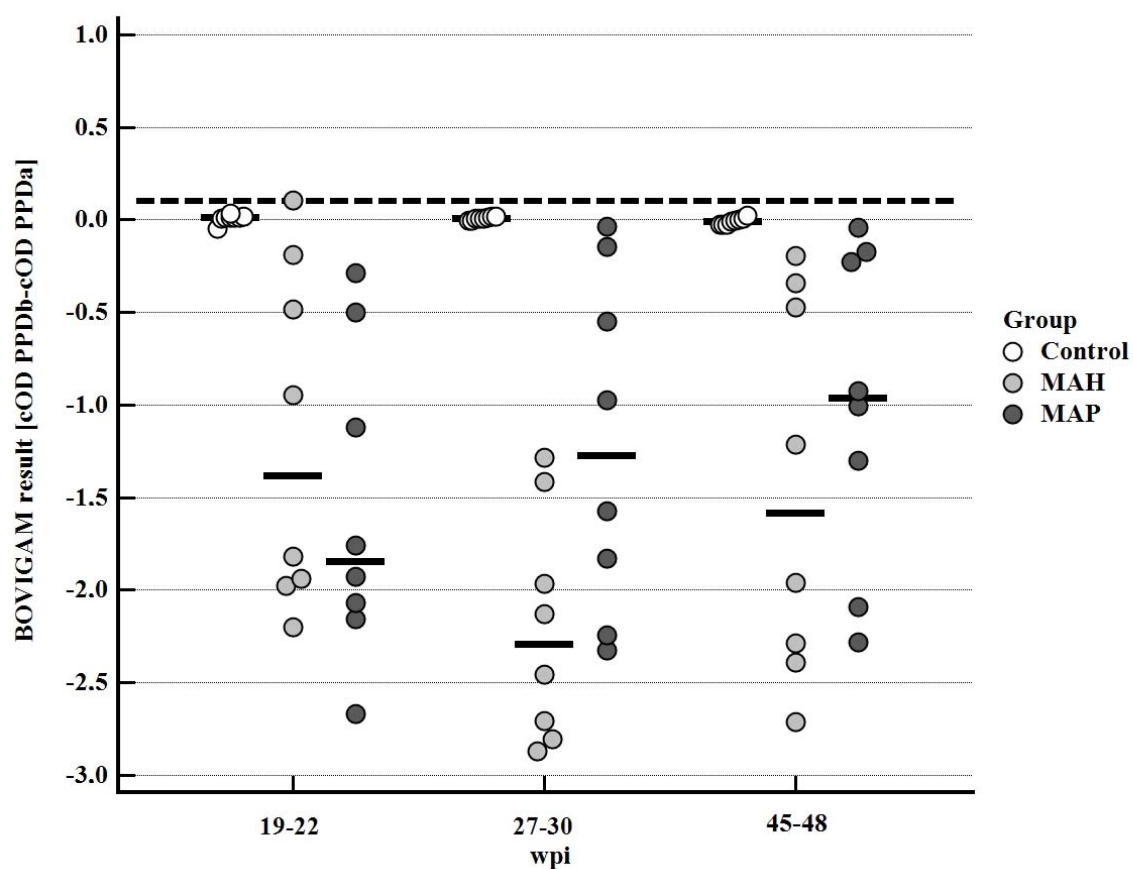


Figure S1: Difference of the whole blood IFN- γ response induced by bovine PPD (PPDb, 300 U) and avian PPD (PPDa, 250 U) of MAH or MAP inoculated goats versus control animals. Each dot represents one animal; bars represent medians. The dashed line indicates the lower limit of a positive response applying the analysis criteria of the BOVIGAM Test System [cOD PPDb-cOD PPDa].

