

S1 Table. Recombinant *M. avium* subsp. *paratuberculosis* proteins used to evaluate immune responses.

Protein ID	Theoretical mass kDa	Recombinant mass kDa	Annotation and putative domain(s)	Expression Plasmid
MAP0196c	46	61*	Septum formation	pET-30a
MAP1569	36	57*	FAP	pET-30a
MAP0471	28	35	Shisa	pET-30a
MAP1981c	27	27	Nucleic acid binding	pET-30a
MAP3634	35	38	Transpeptidase, heme binding, FAP	pET-30a
MAP1693c	18	18*	Peptidyl-prolyl cis-trans isomerase	pET-30a
MBP-MAP0281	58	61	Cysteine-rich secretory protein	pMal-c4e
MBP-MAP3428c	65	72	Cutinase-like protein	pMal-c4e
MAP2785c	17	13	DUF	pET-30a
MAP2786c	11	15	Rab5-binding domain	pET-30a
MAP1718c	15	15*	DUF	pET-30a
MAP4340	37	37	trxC, thioredoxin 1	pET-28a
MAP4339	20	24	trxB2, thioredoxin reductase	pET-30a

* Two or more protein species observed in SDS-PAGE

FAP, fibronectin-attachment protein

Shisa, eukaryotic transcription-factor type protein

MBP, maltose-binding protein

DUF, domain of unknown function

Rab, small GTPase