Table 1. Clinical and demographic information of study participants.

	All	Pulmonary TB	non TB
Number of participants n, (%)	322	106(33)	216(67)
Male/Female ratio n, (%)	168(52)/154(48)	67(63)/39(37)	97(45)/119(55)
HIV status (pos/neg) n, (%)	54(17)/268(83)	24(23)/82(77)	30(14)/186(86)
QFT-IT result available n, (%)	211(66)	78(37)	133(63)
QFT-IT positive, n (%)	111(53)	56(50)	55(50)

Abbreviation: QFT-IT = Quantiferon TB Gold In Tube; n = number

Table 2. Diagnostic potential of markers detected in overnight culture supernatant for TB disease

Marker/WBA	Median TB	Median non TB	P value	AUC	Optimal cut off	Sensitivity %	Specificity %
CRP$_{Nil}$	115296 (990-268405)	4903 (0-268405)	0.01	0.85	183	80	80
SAA $_{Nil}$	1577 000 (0-1577000)	4171 (0-1577000)	0.01	0.79	166	81	72
Ferritin $_{Nil}$	184000 (5668-495381)	84602 (27.74-495381)	0.01	0.74	172	70	70
IP-10 $_{Nil}$	1984 (58.88-3889)	618 (0-3889)	0.01	0.77	170	77	71
IL-6 $_{Nil}$	180.7 (0-1659)	81.7 (0-1659)	0.03	0.57	120	69	51
IL-7 $_{Nil}$	9.44 (0-47.57)	6.04 (0-47.57)	0.01	0.60	114	55	63
IL-9 $_{Nil}$	39.97 (0-128.2)	31.87 (0-128.2)	0.02	0.42	147	46	46
IL-13 $_{Nil}$	6.65 (0-20.06)	2.99 (0-20.06)	0.01	0.39	50	45	42
IFN-γ $_{Nil}$	121.6 (0-396.1)	85.3 (0-396.1)	0.01	0.59	127	58	60
VEGF $_{Nil}$	157.5 (4.1-455.9)	107.5 (0-455.9	0.01	0.60	134	66	50
Haptoglobin $_{Nil}$	92400000 (33178-92400000)	2340000 (0-92400000)	0.01	0.61	158	64	59
SAP $_{Nil}$	112884 (15819-381489)	83860 (0-381489)	0.01	0.59	172	53	62
PCT $_{Nil}$	8785 (1567-15324)	8184 (1567-15324)	0.03	0.43	160	39	58
IP-10 $_{Ag-Nil}$	3943 (0-20816)	1781 (0-20816)	0.01	0.64	174	60	65
IFN-γ $_{Ag-Nil}$	347.7 (0-1346)	145.5 (0-1346)	0.01	0.64	178	57	70
IL-1ra $_{Ag-Nil}$	633.7 (0-2845)	415.2 (0-2845)	0.01	0.59	157	59	56
tPA $_{Ag-Nil}$	301.6 (0-3908)	0.0 (0-3908)	0.01	0.58	167	55	61
TRAIL $_{Ag-Nil}$	12.64 (0-144.0)	0.0 (0-144.0)	0.01	0.59	135	57	67
IL-2 $_{Rv1284-Nil}$	3.30 (0-60.71)	9.34 (0-60.71)	0.03	0.58	151	52	67
tPA $_{Rv0081-Nil}$	270.1 (0-3699)	0.0 (0-3699)	0.04	0.57	148	58	56
IL-2 $_{Rv2034-Nil}$	0.0 (0-52.91)	5.46 (0-52.91)	0.01	0.60	96	69	52
IL-17 $_{Rv2034-Nil}$	12.42 (0-213.4)	26.3 (0-213.4)	0.03	0.58	145	59	59
FGF basic $_{Rv2034-Nil}$	4.35 (0-129.7)	15.51 (0-129.7)	0.03	0.58	166	50	64
Ferritin $_{Rv2034-Nil}$	7624 (0-110159)	521.5 (0-110159)	0.02	0.58	184	52	66

Median levels of analytes (pg/ml) excluding SAA (ng/ml) and ranges (in parenthesis) showing accuracies in discriminating between active TB and non TB in overnight culture supernatants from all study participants. All analytes that showed significant differences (p<0.05) between the TB and non TB cases according to the Mann Whitney U test are shown. Optimal cut off values, sensitivity and specificity were selected based on Youden's index. The levels of the different antigens shown were corrected for background subtraction of the unstimulated levels. AUC= Area under the receiver operator characteristics curve, Nil= unstimulated marker levels and Ag= ESAT-6/CFP-10 stimulated marker levels.

Table 3. Diagnostic potential of markers detected in overnight culture supernatants in discriminating LTBI from uninfected controls

Marker/WBA	Median LTBI	Median non TB	P value	AUC	Optimal cut off	Sensitivity %	Specificity %
IL-1β $_{Nil}$	2.37 (0-70.54)	6.64 (0-70.54)	0.01	0.65	3.9	64	67
IL-1Rα $_{Nil}$	159.9 (0-2005)	399.0 (0-2005)	0.01	0.62	140.3	75	49
IL-2 $_{Nil}$	6.16 (0-80.04)	13.22 (0-80.04)	0.01	0.62	6.2	70	52
IL-6 $_{Nil}$	19.17 (0-1653)	116.4 (0-1653)	0.01	0.68	51.8	66	74
IL-10 $_{Nil}$	14.20 (0-150.2)	27.01 (0-150.2)	0.01	0.62	26.0	52	78
MIP-1α $_{Nil}$	5.28 (0-89.85)	11.15 (0-89.85)	0.01	0.61	5.5	70	54
TNF-α $_{Nil}$	21.32 (0-198.5)	32.15 (0-198.5)	0.01	0.63	29.5	56	70
Eotaxin-2 $_{Nil}$	484.3 (28.42-1451)	328.1 (0-1451)	0.01	0.61	531.4	76	49
IP-10 $_{Ag-Nil}$	5781 (0-20286)	700 (0-20286)	0.01	0.77	2669	75	72
IFN-γ $_{Ag-Nil}$	376.3 (0-1189)	106.1 (0-1189)	0.01	0.76	196.7	71	74
IL-1Rα $_{Ag-Nil}$	790.0 (0-2614)	323.6 (0-2946)	0.01	0.66	809.7	78	49
GM-CSF $_{Ag-Nil}$	49.39 (0-168.0)	21.51 (0-168.0)	0.01	0.70	32.1	66	70
MCP-1 $_{Ag-Nil}$	4653000 (0-4653000)	27752 (0-4653000)	0.01	0.66	781534	75	56
MIP-1α $_{Ag-Nil}$	281.1 (0-1277)	83.47 (0-1277)	0.01	0.64	151.5	57	67
IL-2 $_{Ag-Nil}$	173.8 (0-357.2)	21.30 (0-357.2)	0.01	0.80	74.8	77	69
IL-4 $_{Ag-Nil}$	2.26 (0-6.52)	1.04 (0-6.82)	0.01	0.64	2.1	70	56
IL-5 $_{Ag-Nil}$	5.72 (0-14.4)	0 (0-14.4)	0.01	0.68	5.7	86	50
IL-13 $_{Ag-Nil}$	22.55 (0-56.09)	2.50 (0-56.09)	0.01	0.76	7.6	71	72
IL-15 $_{Ag-Nil}$	95.74 (0-269.8)	41.06 (0-269.8)	0.01	0.63	78.5	67	60
FGF basic $_{Ag-Nil}$	41.03 (0-137.3)	21.31 (0-137.3)	0.01	0.63	40.9	76	50
Eotaxin-2 $_{Ag-Nil}$	76.15 (0-757.6)	4.27 (0-757.6)	0.01	0.63	252.5	88	38
IL-8 $_{Rv2034-Nil}$	4075 (0-25911)	2467 (0-25911)	0.02	0.59	6111	71	46
IL-15 $_{Rv2034-Nil}$	46.36 (0-245.7)	27.42 (0-245.7)	0.03	0.59	16.5	46	72
MCP-1 $_{Rv2034-Nil}$	30946 (0-178009)	5909 (0-178009)	0.01	0.63	109303	85	40
MIP-1α $_{Rv2034-Nil}$	58.69 (0-391.8)	21.13 (0-391.8)	0.02	0.60	1.8	34	87
G-CSF $_{Rv1284-Nil}$	60.89 (0-343.5)	30.07 (0-343.5)	0.01	0.64	13.6	45	79
MCP-1 $_{Rv1284-Nil}$	91386 (0-608346)	17736 (0-608346)	0.01	0.63	46586	69	57
PDGF-BB $_{Rv1284-Nil}$	88.76 (0-740.5)	0 (0-740.5)	0.01	0.62	144.3	82	44

Median levels of analytes (pg/ml) and ranges (in parenthesis) showing accuracies in discriminating between LTBI and uninfected controls in overnight culture supernatants of all study participants. All analytes that showed significant differences (p<0.05) between LTBI and uninfected controls according to Mann Whitney U test are shown. Optimal cut off values, sensitivity and specificity were selected based on Youden's index. The levels of the different antigens shown were corrected for background subtraction of the unstimulated levels. AUC= Area under the receiver operator characteristics curve, Nil= unstimulated marker levels and Ag= ESAT-6/CFP-10 stimulated marker level.

Table 4. Utility of combination of analytes in overnight culture supernatant in the diagnosis of TB

Host marker model	Training classification set			Test classification set		
6 analyte model **All cases**	**Non TB %**	**TB %**	**Total %**	**Non TB %**	**TB %**	**Total %**
IP-10 $_{\text{Ag-Nil,}}$ IFN-γ $_{\text{Ag-Nil,}}$ IP-10$_{\text{Nil}}$ Ferritin $_{\text{Nil,}}$ SAA $_{\text{Nil,}}$ CRP $_{\text{Nil}}$	84	77	82	78	83	80
6 analyte model **HIV uninfected**	**Non TB %**	**TB %**	**Total %**	**Non TB %**	**TB %**	**Total %**
IP-10 $_{\text{Ag-Nil,}}$ IFN-γ $_{\text{Ag-Nil,}}$ IP-10$_{\text{Nil}}$ Ferritin $_{\text{Nil,}}$ SAA $_{\text{Nil,}}$ CRP $_{\text{Nil}}$	90	83	88	82	88	84

Host marker model	Resubstitution classification matrix			Leave-one-out cross validation		
6 analyte model **HIV infected**						
	Non TB %	**TB %**	**Total %**	**Non TB %**	**TB %**	
IP-10 $_{\text{Ag-Nil,}}$ IFN-γ $_{\text{Ag-Nil,}}$ IP-10$_{\text{Nil}}$ Ferritin $_{\text{Nil,}}$ SAA $_{\text{Nil,}}$ CRP $_{\text{Nil}}$	80	64	73	76	52	

Six analyte models generated by general discriminant analysis. Nil=unstimulated, Ag=ESAT-6/CFP-10