Table S1. Identification of host proteins that interact with HDAC1 in macrophages infected with *M. tuberculosis*, by LC- MS/MS analysis.

Protein Name	**Molecular Weight**	**Uniport ID**	**Number of Peptides from LC MS/MS**
Histone deacetylase 1	55.103	Q13547	14
Histone deacetylase 2	55.364	Q92769	10
Zinc finger and BTB domain-containing protein 25	48.990	P24278	12
Paired amphipathic helix protein Sin3a	145.175	Q96ST3	11

Table S2. List of oligonucleotide primers used in this study.

Name	**FORWARD PRIMER 5'-3'**	**REVERSE PRIMER 5'-3'**
IL-12B promoter	TCTTTCTTCTGCTGCTGTTG	AGCCAAGATGGGTGGTAAA
β actin	ATGGAAGGGTCTAAGACGTC	AATAAATGGCTCCTCTCCTG
ZBTB25	ACCGTCTTCTCTGGCACTCA	TGTTGATCCTCTCACAAGATT
ATG5	TAAGGATGCAATTGAAGCTC	AAGGGGATATAACGAAATCC
BECN1	ATGGAAGGGTCTAAGACGTC	AATAAATGGCTCCTCTCCTG
IL-12B	ATGTGTCACCAGCAGTTGGT	AAGACCTCACTGCTCTGGT
JAK2	TGAAGCTCCTCTTCTTGATG	AAGAATGTCTTGTAGCTG
STAT4	AATAATCCTCCACCTGCCACATTG	CTGAGTTAAGACCACGACCAACG

Table S3. Interacting amino acid residues of HDAC1 and ZBTB25

Sl.No.	HDAC1	ZBTB25
	Interacting amino acid residues	
1.	Gly27	Glu336
2.	His28	Leu337
3.	Pro29	Asn338
4.	Glu98	Cys339
5.	Asp99	Asn340
6.	Gly202	Phe341
7.	Glu203	Ser342
8.	Tyr204	Phe343
9.	Phe205	Ser344
10.	Pro206	Arg345
11.	Gly207	Lys346
12.	Thr208	Thr352
13.	Asp210	Ile353
14.	Leu211	Cys354
15.	Gly268	Gly355
16.	Arg270	Phe392
17.	Thr304	Gln393
18.	Ile305	Pro394
19.	Ile362	Tyr395
20.	Arg365	Cys396
21.	Lys361	Lys405

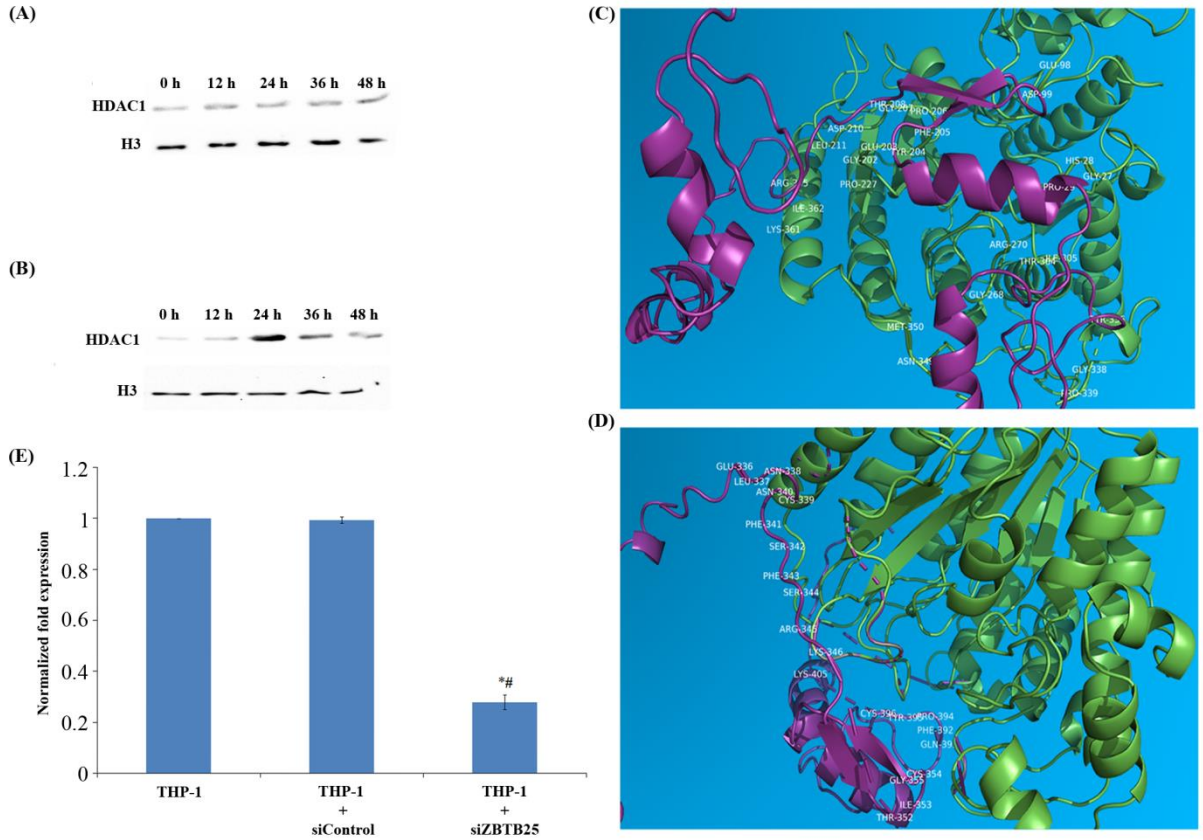

Fig. S1. Time course analysis of levels of HDAC1 in uninfected macrophages (A) and in macrophages infected with *M. tuberculosis* (B). Docking analysis shows the interacting residues of HDAC1 (C, green) and ZBTB25 (D, purple) using Autodock 4.2. Confirmation of efficiency of knockdown of *ZBTB25* gene by qPCR (E), representative data from three independent experiments with similar results. Expression of *ZBTB25* in macrophages in which it is knocked down is significantly lesser than that in the controls.

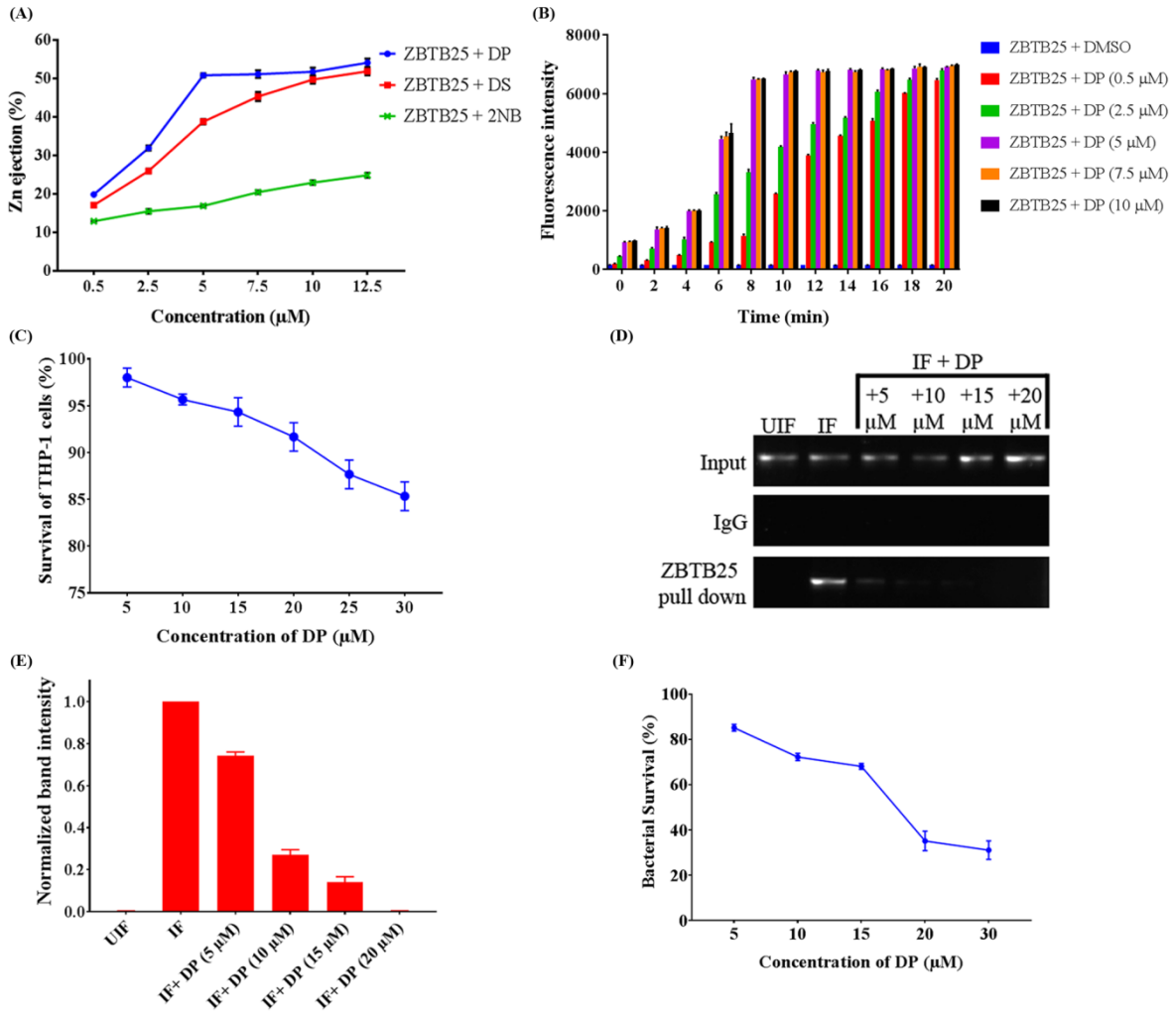

Fig. S2. Zn^{2+} ejection assay on ZBTB25 by dithiopyridine (DP), disulfiram (DS) and 2-nitrobenzoic acid (2NB) (A). Fluorescence signal from the Zn-specific fluorophore, FluoZin-3 is used to monitor Zn ejection. Zinc ejection assay at different concentrations of DP (B). ZBTB25 protein was incubated with DP at different concentrations, and the release of zinc ions was monitored by the fluorescence signal from the Zn-specific fluorophore, FluoZin-3. MTT assay: viability of THP-1derived macrophages cells after treatment with various concentrations of DP at 48 h (C). Chromatin immunoprecipitation followed by PCR to show the recruitment of ZBTB25 (D). DP at 20 μM blocks the recruitment of ZBTB25 to *IL-12B* promoter in macrophages infected with *M. tuberculosis.* Densitometric analysis of the bands of *IL-12B* promoter after PCR (E). Effect of DP on the survival of intracellular *M. tuberculosis* (F). THP-1-derived macrophages were infected with *M. tuberculosis* H37Rv. After infection, cells were treated with different concentrations of DP for 24 h. Intracellular bacterial viability was determined by counting the number of CFUs after incubating the plates at 37 ^{o}C for 3 weeks.

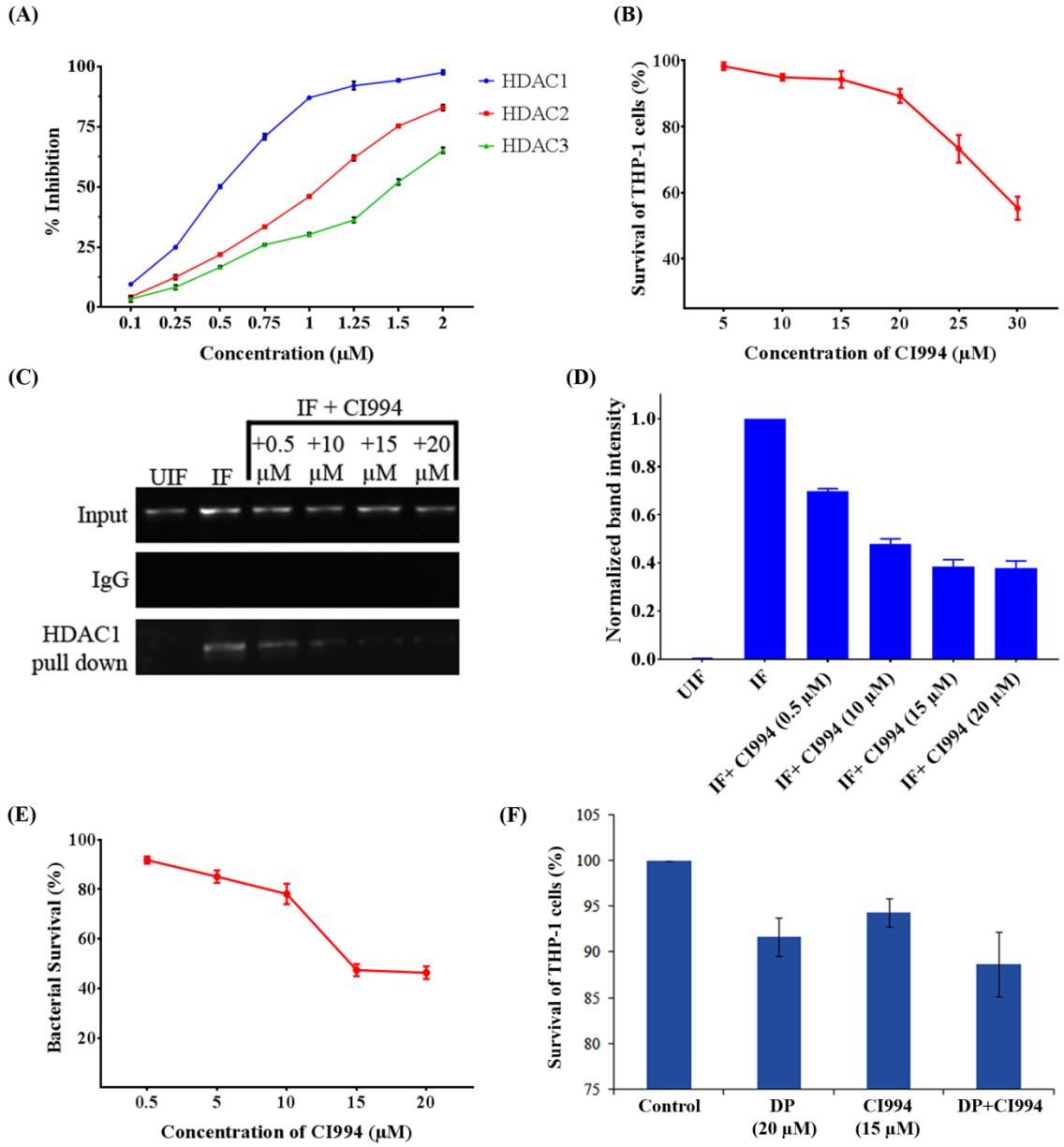

Fig. S3. HDAC inhibition assay: The inhibitory effect of different concentrations of CI994 against HDAC1, HDAC2 and HDAC3 (A). MTT assay: Viability of THP-1derived macrophages at different concentrations of CI994 at 48 h (B). Chromatin immunoprecipitation followed by PCR to show the recruitment of HDAC1 (C). CI994 abrogates the recruitment of HDAC1 to *IL-12B* promoter in macrophages infected with *M. tuberculosis*. Densitometric analysis of the bands of *IL-12B* promoter after PCR (D). Effect of CI994 on the survival of intracellular *M. tuberculosis* (E). THP-1-derived macrophages were infected *M. tuberculosis* H37Rv. After infection, cells were treated with different concentrations of CI994 for 24 h. Intracellular bacterial viability was determined by counting the number of CFUs after incubating the plates at 37 °C for 3 weeks. MTT assay: viability of THP-1-derived macrophages upon treatment with dithiopyridine (DP) and CI994 at 48 h (F).

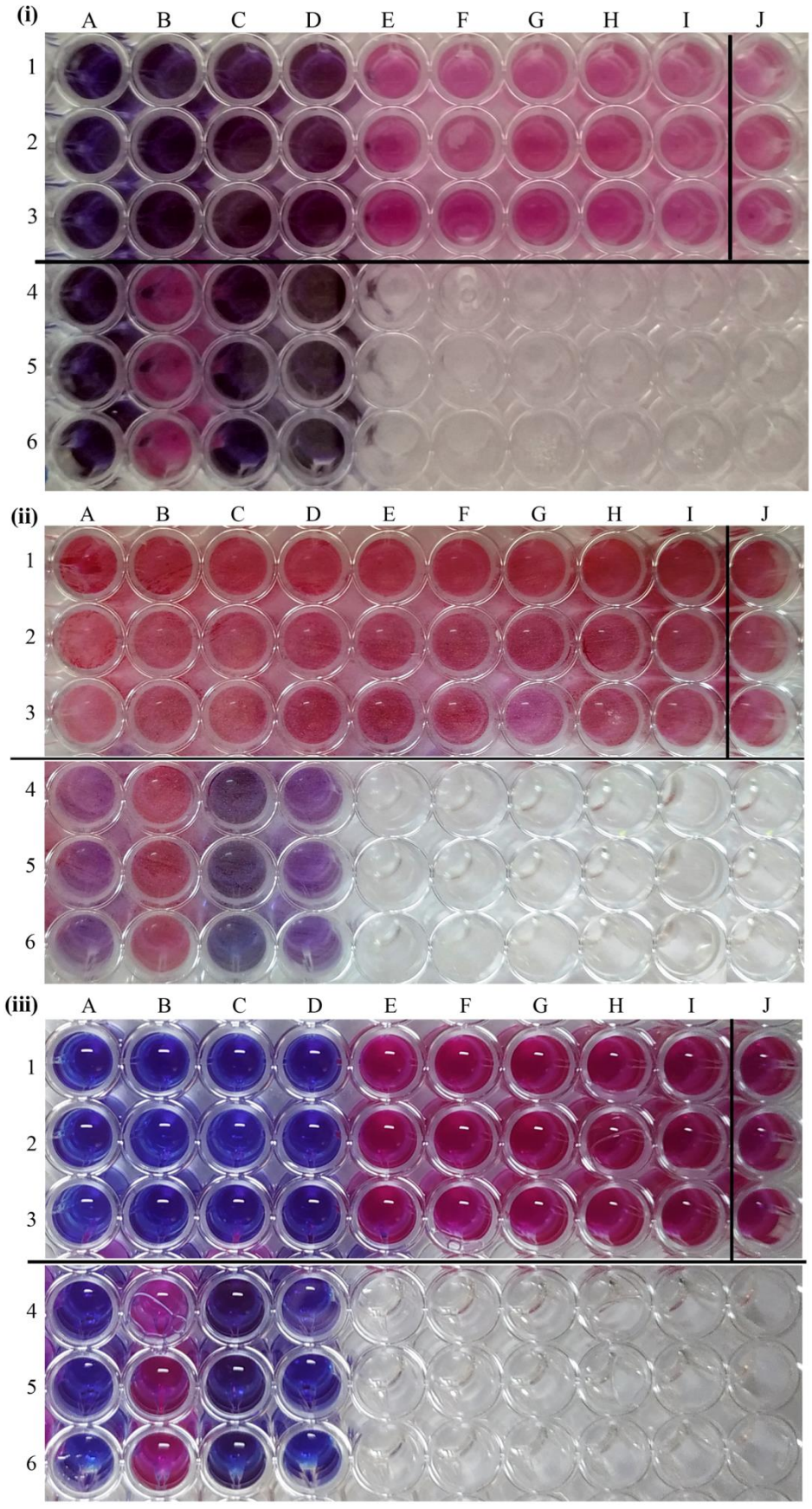
(i)
A B C D E F G H I J
1
2
3
4
5
6
(ii)
A B C D E F G H I J
1
2
3
4
5
6
(iii)
A B C D E F G H I J
1
2
3
4
5
6

Fig. S4. Resazurin microtiter *assay* (REMA) to determine the minimum inhibitory concentration (MIC) of DP against *M. tuberculosis* (i). Wells 1A to 1I contain *M. tuberculosis* H37Rv treated with decreasing concentrations of DP (1000-3.9 μM). Wells 2A to 3I represent duplicates of the same. Wells 1J, 2J & 3J contain DMSO control. Wells 4A, 5A & 6A contain media alone. Wells 4B, 5B & 6B contain media with bacteria. Wells 4C, 5C, 6C contain media with drug alone . Wells 4D, 5D & 6D contain bacteria treated with rifampicin (1 μg/mL). REMA of *M. tuberculosis* in the presence of CI994 (ii). Wells 1A to 1I contain *M. tuberculosis* H37Rv treated with decreasing concentrations of CI994 (1000-3.9 μM). Wells 2A to 3I represent duplicates of the same. Wells 1J, 2J & 3J contain DMSO control. Wells 4A, 5A & 6A contain media alone. Wells 4B, 5B, 6B contain media with bacteria. Wells 4D, 5D & 6D contain bacteria treated with rifampicin (1 μg/mL). Wells 4C, 5C, 6C contain media with drug alone. REMA of *M. tuberculosis* in the presence of DP and CI994 (iii). Wells 1A to 1I contain *M. tuberculosis* H37Rv treated with decreasing concentrations of DP and CI994 (1000-3.90 μM each). Wells 2A to 3I represent duplicates of the same. Wells 1J, 2J & 3J contain DMSO control. Wells 4A, 5A & 6A contain media alone. Wells 4B, 5B, 6B contain media with bacteria. Wells 4D,5D & 6D contain bacteria treated with rifampicin (1 μg/mL). Wells 4C, 5C, 6C contains media with drug alone.

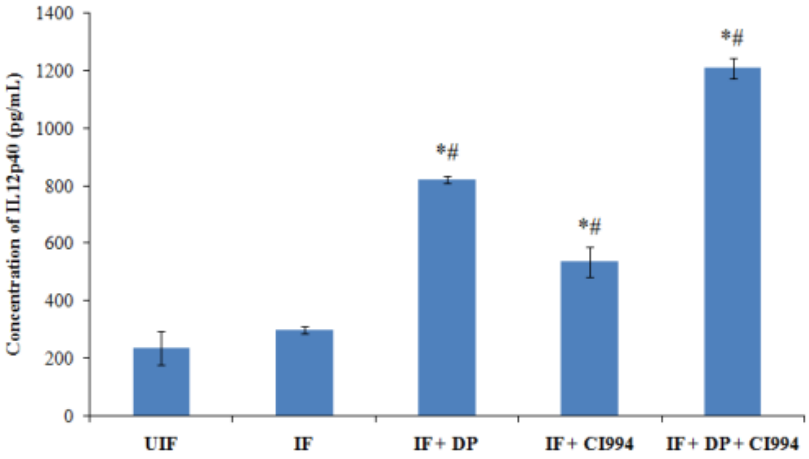

Fig. S5. ELISA of IL-12p40 in PBMC after the infected cells was treated with DP and CI994.

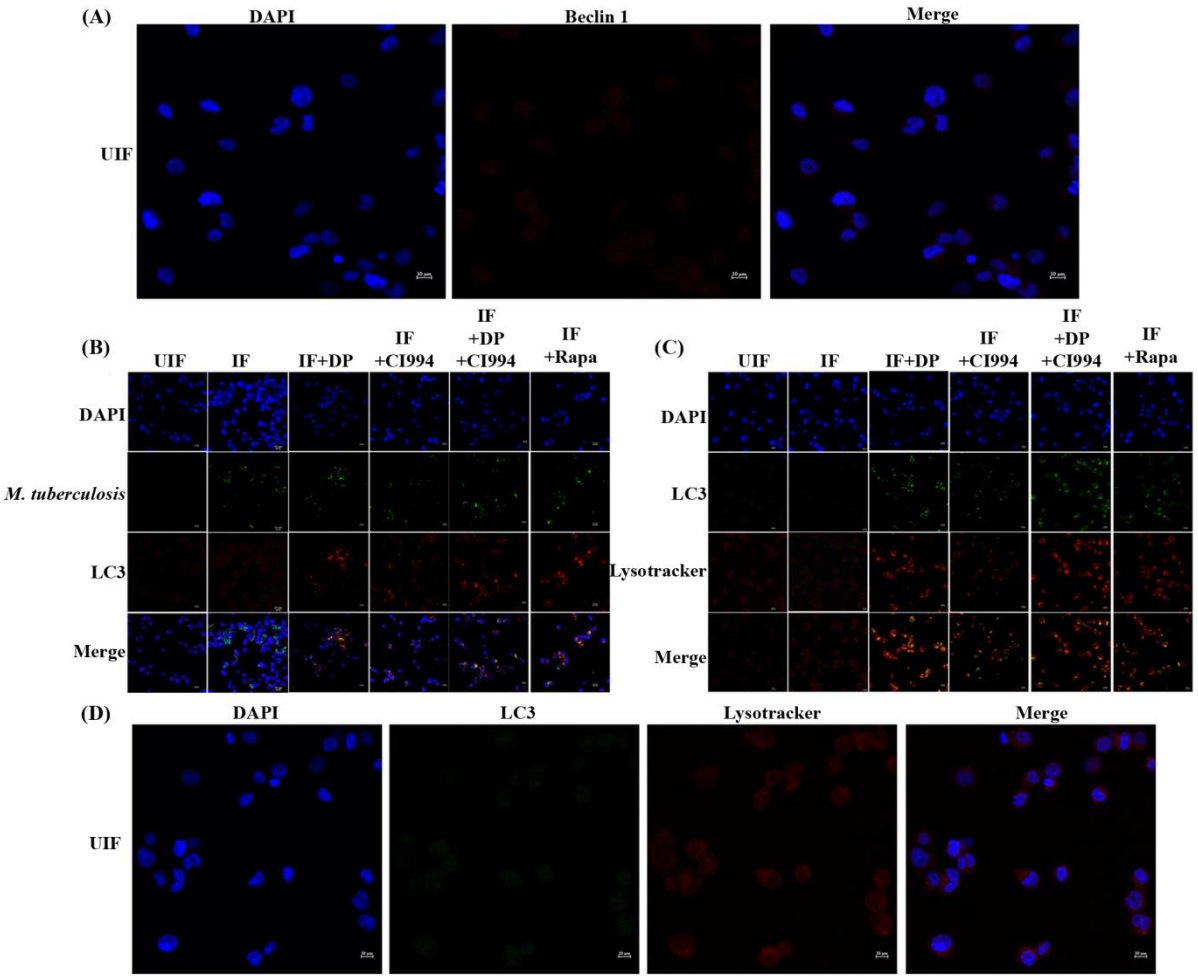

Fig. S6. Confocal microscopy: treatment of uninfected macrophages with DP and CI994 did not affect the levels of autophagy marker Beclin 1 (A). Confocal microscopy: DP and CI994 induce autophagic clearance of bacteria by enhancing the levels of LC3 (B and C, respectively). *M. tuberculosis*-LC3 and LC3-lysosome co-localization in human macrophages. Confocal microscopy: treatment of uninfected macrophages with DP and CI994 did not affect the levels of autophagy marker LC3, and did not show lysosome-containing cells (D).

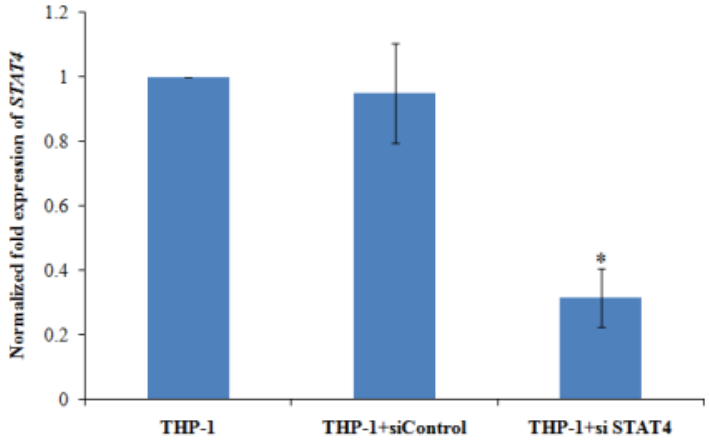

Fig. S7. Efficiency of knockdown was confirmed by qPCR. THP-1-derived macrophage cells were transfected with *STAT4* siRNA or scrambled siRNA control using Hiperfect transfection reagent.