Figure S1: Calcitriol alters the binding of PU.1 and HDAC1 at VDRE and impairs total histone acetylation at *Il9* promoter

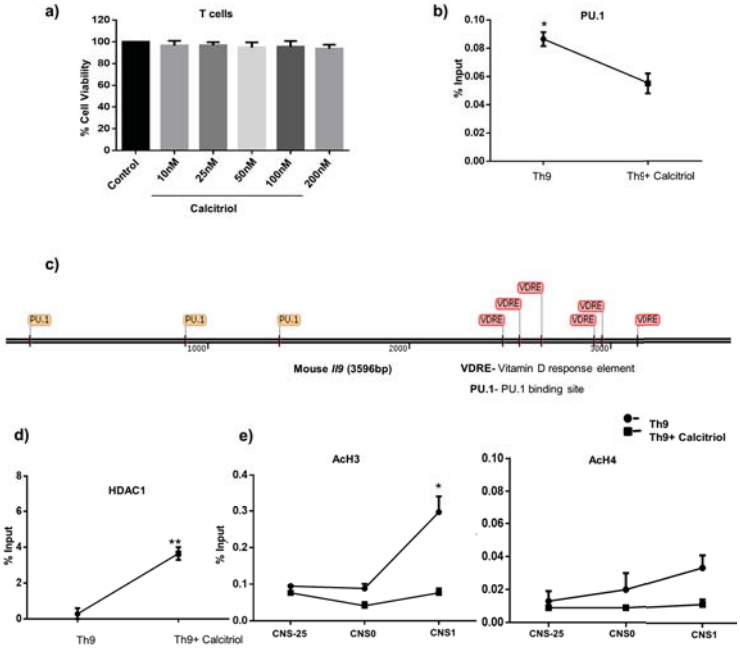

Figure S1: Calcitriol alters the binding of PU.1 and HDAC1 at VDRE and impairs total histone acetylation at *Il9* promoter. a) T cells were treated with different doses of calcitriol (10, 25, 50,100 and 200 nM) and its impact on cell viability was determined by MTT assay b) Binding of PU.1in the presence of calcitriol at putative VDRE described in Fig 1c was determined by ChIP. c) PU.1 binding sites and VDRE at *Il9* gene. d) HDAC1 binding in the presence of calcitriol at putative VDRE. e) Total acetylation of histones H3 and H4 was determined in the presence of calcitriol at the three CNS mentioned before using ChIP. Data represents mean± S.D of 3 independent experiments *p<0.05 and **p<0.01 when compared to Th9 cells.

Figure S2: Calcitriol-mediated regulation of other cytokines secreted by Th9 cells

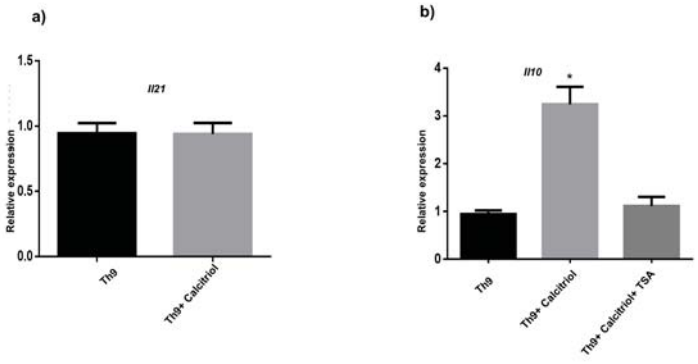

Figure S2: Calcitriol-mediated regulation of other cytokines secreted by Th9 cells. a) Th9 cells were treated with calcitriol and the expression of *Il21* was detremined by q RT-PCR. b) Th9 cells were treated with calcitriol and TSA and the expression of *Il10* was assessed by q RT-PCR.

Table S1: List of primers for q RT-PCR and conserved non-coding sequences used in ChIP

Gene/CNS	Primer sequence (5'→3')
mIL-9F	CATCAGTGTCTCTCCGTCCCAACTGATG
mIL-9R	GATTTCTGTGTGG CATTGGTCAG
mIL-4F	ACGAGGTCACAGGAGAAGGGA
mIL-4R	AGCCCTACAGACGAGCTCACTC
mIL-17aF	ACCCTGGACTCTCCACCGCAA
mIL-17aR	GGCTGCCTGGCGGACAATCG
mIL-10F	ATAACTGCACCCACTTCCCA
mIL-10R	GGGCATCACTTCTACCAGGT
mPU.1F	GGGAGAGCCATAGCGACCAT
mPU.1R	TAGGAGACCTGGTGGCCA AGA
mIRF4F	GCCCAACAAGCTAGAAAG
mIRF4R	TCTCTGAGGGTCTGGAAACT
mBatfF	GAAGAATCGCATCGCTGC
mBatfR	GTTCTGTTTCTCCAGGTCC
mGata3F	CGGGTCGGCCAGGCAAGATG
mGata3R	AGGGGAACCTCCCAGCAGGC
mRORγtF	GGAGCTCTGCCAGAATGACC
mRORγtR	CAAGGCTCGAAACAGCTCCAC
mFoxp3F	GGCCCTTCTCCAGGACAGA
mFoxp3R	GCTGATCATGGCTGGGTTGT
mVDRF	CTCCTCGATGCCCACCACAAGACCTACG
mVDRR	GTGGGGCAGCATGGAGAGCGGAGACAG
mβ-ActinF	GATCTGGCACCACACCTTCT
mβ-ActinR	ACCAGAGGCATACAGGGACA
CNS0 F	GAGCTGAACGCAGGCCAAGAACGA
CNS0 R	CTTGGAACTAGTTATCTCTCCACTG
CNS1 F	CAGTCTACCAGCATCTTCCAGTCTAGC
CNS1 R	GTGGGCACTGGGTATCAGTTTGATGTC
CNS-25 F	ATGTCATGAGGCTTGTCTGC
CNS-25R	ACTCCTAATCTTCAAGCCCCT

Table S2: List of primers used in generating various mutants

Name	Primer sequence (5'→3')
Primer 1	ATCAGGGGATCCTCACTATAGGGCGAATTGGG
Primer 2	TTACGCTGCACCTCCTCATCCACATTCCGGTCAAAGTC
Primer 3	GATGAGGAGGTGCAGCGTAA
Primer 4	ATGACCGAATTCCAAGCTATGCATCCAACGC
Primer 5	ATAACCGAATTCATGGAGGCAATGGCAGCC
Primer 6	ATGACCGAATTCTCACTGGAAGGAGAGGGAACGG
Primer 7	ATGACCGAATTCTCAAGCTCTGGAGACATCAGTGATG
Primer 8	ATGACCGAATTCTCAGGTAAAAGACTGGTTGGAGCG
Primer 9	ACTATTTGAAGAGCATCTTTTCTGATTAATGGTATTTCCTGGCATAAGACAG
Primer 10	CTGTCTTATGCCAGGAAATACCATTAATCAGAAAAGATGCTCTTCAAATAGT
Primer 11	CTGAGGCTCCAATAGCCAGATTAAAACCCCAATGAGTGAAAG
Primer 12	CTTTCACTCATTGGGGTTTTAATCTGGCTATTGGAGCCTCAG