

**Supplementary Table 1.** Primers used in GATA-3 ChIP.

Mm Gpr15 upstream F	GTTACAGATAAGGCGACTCACTTTAGC
Mm Gpr15 upstream R	CTCAGACTCATATTCTCACCACACG
Mm Gpr15 downstream F	GAGTAGAGGAGTGGGGAGTTTC
Mm Gpr15 downstream R	AAGTGTGACATGCTGACTGATC
Mm Gpr15 control F	TGGAATACACTAGCACCCTTCTC
Mm Gpr15 control R	AGATGATGTGGGATGCTCTGTATC
Mm Il4 CNS2 F	ATCACGTCGTCTTACCCAAA
Mm Il4 CNS2 R	TGTGGGAGAGCGTCTGATCTG
Hs GPR15 upstream F	TCACCAACCACACAACCGTATTTTC
Hs GPR15 upstream R	AACAGCAGAGTAAGAAGCAGAAGTAG
Hs GPR15 downstream F	GTGACTTGGTGACTGATCTCATTACTG
Hs GPR15 downstream R	ACTTGTCTTCTTGGGTGAAATAACTTC
Hs GPR15 control F	TGTACCCCGATGCAGATTATCATT
Hs GPR15 control R	GAGCAGCCTGTCTCCCTATATTAC
Hs IL4 CNS2 F	CGTGTTTGGGTGAGACAATC
Hs IL4 CNS2 R	ATCTTGGGGCTTCCTGTGACC

**Supplementary Table 2.** GEO accession numbers for previously published ChIP-seq datasets used in this study

Human T <sub>H</sub> 2 GATA-3	GSM776559 and GSM776556 (input)	Kanere, A. <i>et al.</i> (2012)
Mouse T <sub>H</sub> 2 Gata-3	GSM523226	Wei, G. <i>et al.</i> (2011)
Mouse T <sub>H</sub> 2 Gata-3 replicate	GSM742023	Wei, G. <i>et al.</i> (2011)
Mouse T <sub>H</sub> 17 Gata-3	GSM523228	Wei, G. <i>et al.</i> (2011)
Mouse nT <sub>reg</sub> Gata-3	GSM523230	WWei, G. <i>et al.</i> (2011)
Mouse Foxp3	GSM999179 and GSM999181 (input)	Samstein, R.M. <i>et al.</i> (2012)
Human Foxp3 donor1 rep1	SRR192542	Birzele, F. <i>et al.</i> (2011)
Human Foxp3 donor1 rep 2	SRR192543	Birzele, F. <i>et al.</i> (2011)
Human Foxp3 donor2 rep1	SRR192544	Birzele, F. <i>et al.</i> (2011)
Human Foxp3 donor2 rep2	SRR192545	Birzele, F. <i>et al.</i> (2011)
Mouse Th1 H3K4me3	GSM361999	Wei, G. <i>et al.</i> (2009)
Mouse Th2 H3K4me2	GSM362001	Wei, G. <i>et al.</i> (2009)