

Supplementary table 1. Thyroid samples.

Sample	rs179247	rs2288495	rs1210225	Sex	Age	Pathology	Tissue
TB 057	A/G	C/G	C/C	M	53	GD	Thyroid
TB 081	G/G	G/G	C/C	F	32	GD	Thyroid
TB 092	A/G	C/G	C/T	F	42	GD	Thyroid
TB 102	A/G	C/G	C/T	F	38	GD	Thyroid
TB 134	G/G	C/G	C/C	F	22	GD	Thyroid
TB 157	A/G	C/G	C/T	F	32	GD	Thyroid
TB 183	A/G	C/G	C/C	F	34	GD	Thyroid
TB 186	G/G	C/G	C/C	F	41	GD	Thyroid
TB 209	A/G		C/C	M	50	NORMAL	Thyroid
TB 218	A/G	C/G		F	38	MNG	Thyroid
TB 226	G/G	C/C	C/C	F	53	MNG	Thyroid
TB 277	G/G	C/G	C/C	F	51	GD	Thyroid
TB 298	A/G	C/G	C/T	M	43	MNG	Thyroid
TB 307	A/G	C/G	C/T	F	45	MNG	Thyroid
TB 308	G/G	G/G	C/C	F	25	GD	Thyroid
TB 323	G/G		C/C	F	39	MNG	Thyroid
TB 335	G/G		C/C	F	48	MNG	Thyroid
TB 339	G/G		C/C	F	43	MNG	Thyroid
TB 355	A/G	C/G	C/C	F	49	MNG	Thyroid
TB 363	G/G	C/G	C/C	M	71	MNG	Thyroid
TB 366	G/G	G/G		F	36	MNG	Thyroid
TB 368	A/G	C/G	C/C	F	54	MNG	Thyroid
TB 379	G/G	C/G	C/C	F	56	MNG	Thyroid
TB 381	A/G	C/G	C/T	F	45	GD	Thyroid
TB 390	A/A	G/G	C/T	F	35	GD	Thyroid
TB 391	A/A	G/G	C/C	M	38	GD	Thyroid
TB 394	A/G	C/C		F	49	GD	Thyroid
TB 395	A/A	G/G	C/T	F	41	MNG	Thyroid
TB 404	A/G	C/G	C/T	F	55	MNG	Thyroid
TB 406	A/A			F	37	MNG	Thyroid
TB 409	A/G	C/G	C/T	F	62	MNG	Thyroid
TB 412	A/A	G/G	C/C	F	25	GD	Thyroid
TB 413	A/A	G/G	T/T	F	40	GD	Thyroid
TB 416	A/A	G/G	T/T	F	20	GD	Thyroid
TB 420	G/G	C/G		F	45	MNG	Thyroid
TB 421	A/A	C/G	C/T	F	31	GD	Thyroid
TB 423	A/A	C/C	T/T	F	33	GD	Thyroid
TB 426	A/G	C/G	C/T	M	40	GD	Thyroid
TB 429	A/A	C/C	T/T	F	28	GD	Thyroid
TB 430	A/G	C/G	C/C	F	30	GD	Thyroid
TB 431	A/G	C/G	C/T	F	32	GD	Thyroid
TB 439	A/A			F	70	MNG	Thyroid
TB 442	A/G	C/G	C/T	F	24	GD	Thyroid
TB 443	A/A	G/G	C/T	F	50	GD	Thyroid
TB 446	A/A	C/G	T/T	F	24	GD	Thyroid
TB 450	A/A	C/G	T/T	M	24	GD	Thyroid
TB 451	A/A			F	33	MNG	Thyroid
TB 452	A/G	C/G	C/C	F	23	GD	Thyroid
TB 464	A/A	C/G	T/T	F	15	GD	Thyroid

GD: Graves-Basedow disease; MNG: Multinodular goiter

Supplementary table 2. Thymus samples.

Sample	rs179247	rs2288495	rs1210225	Sex	Age	Tissue
TMB 060	G/G	C/C	C/C	M	3m	Thymus
TMB 072	A/G	C/G	C/T	M	3m	Thymus
TMB 088	A/A	G/G	C/T	M	4y6m	Thymus
TMB 093	A/A	C/G	T/T	M	5m	Thymus
TMB 097	G/G	C/G	C/C	M	1m	Thymus
TMB 099	A/G	C/C	C/C	F	62y	Thymus
TMB 100	A/A	C/G	C/T	F	6y	Thymus
TMB 101	A/G	C/G	C/C	M	7m	Thymus
TMB 109	A/A	C/G	T/T	M	4d	Thymus
TMB 113	A/G	C/G	C/T	M	47y	Thymus
TMB 117	A/G	C/G	C/T	M	11y	Thymus
TMB 119	A/G	C/G	C/T	M	8m	Thymus
TMB 125	A/A	G/G	C/T	M	11d	Thymus
TMB 126	A/G	C/G	C/T	F	1y5m	Thymus
TMB 128	A/G	G/G	C/T	F	50y	Thymus
TMB 133	A/G	C/G	C/C	M	51y	Thymus
TMB 135	A/G	C/G	C/C	M	44y	Thymus
TMB 137	G/G	C/G	C/T	F	3m	Thymus
TMB 139	G/G	G/G	C/C	F	1y7m	Thymus
TMB 142	G/G	G/G	C/C	M	3m	Thymus
TMB 175	A/A	C/G	T/T	M	3m	Thymus
TMB 177	A/G	C/C	C/C	F	53y	Thymus
TMB 178	A/G	G/G	C/C	F	72y	Thymus
TMB 186	A/G	G/G	C/T	F	50y	Thymus
TMB 188	A/G	G/G	C/C	M	9d	Thymus
TMB 195	A/G	G/G	C/T	M	11m	Thymus
TMB 197	A/G	C/G	C/T	F	7m	Thymus
TMB 203	G/G		C/C	F	1y10m	Thymus
TMB 218	G/G		C/C	M	1y4m	Thymus
TMB 225	A/G		C/T	F	3y5m	Thymus
TMB 229	A/G		C/T	F	7m	Thymus
TMB 232	G/G		C/C	M	8y5m	Thymus
TMB 247	A/A		C/T	M	5d	Thymus
TMB 261	A/A			M	3y5m	Thymus
TMB 263	A/G		C/T	F	4y5m	Thymus

Supplementary table 3. Primers for allele-specific transcript quantification by NGS.

rs179247 Primer forward (23 nt)	5'-CCATGCCTGTGTGTTCTCATAAT-3'
rs179247 Primer reverse (22nt)	5'-GCCATCTCAAAGCCCACCAAAG-3'
Adaptador (CS1tag, forward)	5'-ACACTGACGACATGGTCTACA-3'
Adaptador (CS2tag, reverse)	5'-TACGGTAGCAGAGACTTGGTCT-3'

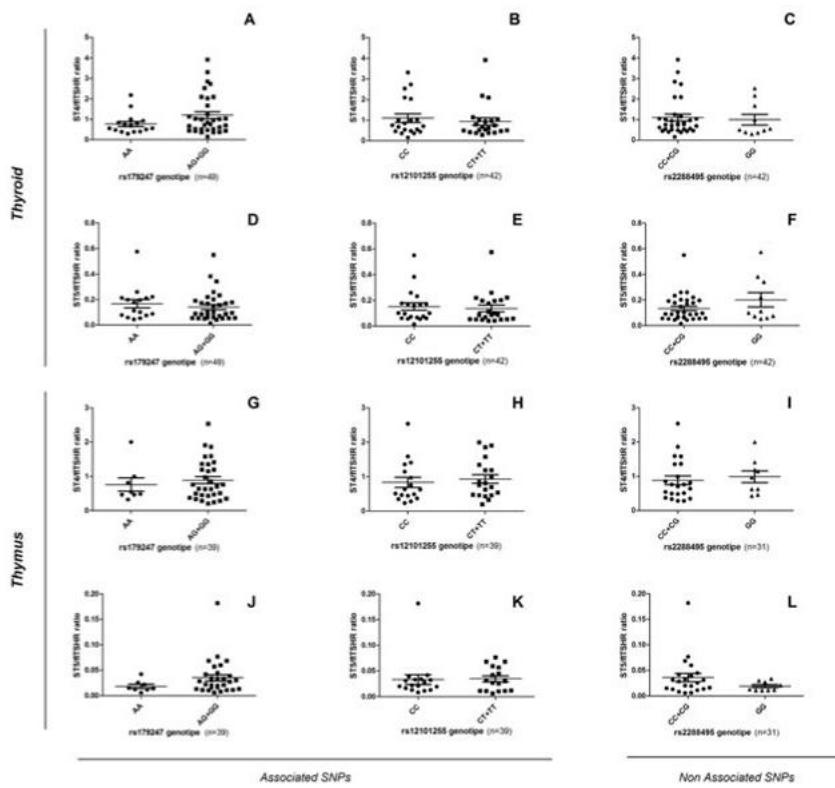
Supplementary table 4. Thymus and thyroid samples included in NGS.

Sample	Tissue	Sex	Age	Diagnostic
TB092	Thyroid	F	42y	Graves Disease
TB102	Thyroid	F	38y	Graves Disease
TB218	Thyroid	F	38y	Multinodular goiter
TB355	Thyroid	F	49y	Multinodular goiter
TB381	Thyroid	F	45y	Graves Disease
TB409	Thyroid	F	62y	Multinodular goiter
TB430	Thyroid	F	30y	Graves Disease
TB452	Thyroid	F	23y	Graves Disease
TMB101	Thymus	M	7m	Corrective heart surgery
TMB117	Thymus	M	11y	Corrective heart surgery
TMB119	Thymus	M	8m	Corrective heart surgery
TMB126	Thymus	F	1y5m	Corrective heart surgery
TMB145	Thymus	M	3m	Corrective heart surgery
TMB159	Thymus	F	8m	Corrective heart surgery
TMB016	Thymus	M	6y	Corrective heart surgery
TMB171	Thymus	M	6d	Corrective heart surgery
TMB188	Thymus	M	6d	Corrective heart surgery
TMB195	Thymus	M	11m	Corrective heart surgery
TMB197	Thymus	F	7m	Corrective heart surgery
TMB225	Thymus	F	3y5m	Corrective heart surgery
TMB229	Thymus	F	7m	Corrective heart surgery
TMB263	Thymus	F	4y5m	Corrective heart surgery
TMB028	Thymus	M	1m	Corrective heart surgery
TMB038	Thymus	M	7d	Corrective heart surgery
TMB004	Thymus	M	2m	Corrective heart surgery
TMB072	Thymus	F	3m	Corrective heart surgery

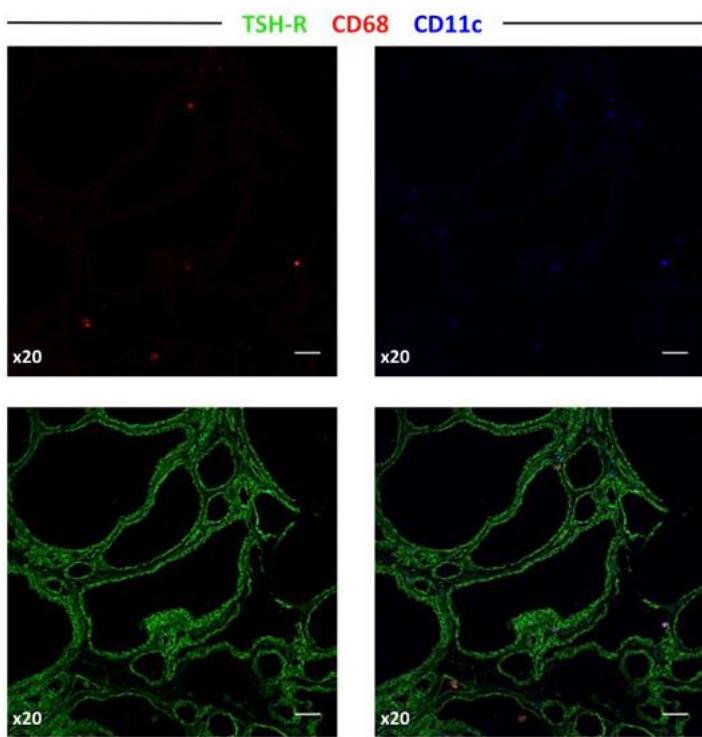
Supplementary table 4. List of samples included in allele-specific quantification using NGS (thymus n = 19, thyroid n = 8). The thymus samples were from patients between 0 and 11 years old, obtained mainly after surgery for congenital heart malformation. Thyroid samples were from women between the ages of 20 and 65 years diagnosed with Graves' disease or with multinodular goiter All samples were heterozygous patients for the SNP rs179247.

Supplementary table 5. Primers and probes for ST4 and ST5 relative quantification by Taqman-based quantitative PCR (qPCR).

ST4	Primer Forward	5'- TTGGAGGAGTATACAGTGGACCAA-3'
	Primer Reverse	5'- TGGGGCCTTCTGAGTCTAAA-3'
	TaqMan Probe	5'- TTGCTGCTGCCTCTTGAAGAAAGTCC-3'
ST5	Primer Forward	5'- AAAGATGCATTGGAGGAGTATACAGT-3'
	Primer Reverse	5'- GAACACAGATCCAGGTGCAGTAAGT-3'
	TaqMan Probe	5'- CAAGCTTGCTATTCTAATGAGTCCAT-3'



Supplementary Figure 1. Representation of the relative allele expression grouped following the dominant models for the rs179247G and rs12101255C alleles. No statistical differences were found for this model that would indicate an effect of the alleles on isoform transcription.



Supplementary Figure 2. CD68, CD11c ,and TSHR staining on a thyroid cryostat. There is minimal staining of macrophages (CD68) and dendritic cells in this normal thyroid tissue. The anti-TSHR clearly stains the thyroid follicular cells, outlining the cells.

