

**Supplementary Table 1.** Samples selected for the meta-analysis of gene expression profiles in total thyroid (Pool A), histologically normal thyroid adjacent to papillary thyroid carcinoma (Pool B).

Study ID	Sample ID	Age	Sex	Sample type	Sample collection	Post-mortem interval	Platform	Microarray	Spots	References
<b>Pool A - Total thyroid</b> (27,275 mapped loci following analysis by TRAM) (n=35)										
A1 - A2 n=2	NO1 - NO2* (E-MEXP-2442) <sup>a</sup>	N/A (adult)	2 F	Whole thyroid	Institutions participating in the study	N/A	A-AFFY-44* (GPL570)	Affymetrix U133 Plus 2.0	54,675	(Borup et al., 2010)
A3 - A4 n=2	GSM2836 GSM2848	N/A	N/A	"	Commercial human thyroid RNA	N/A	GPL91	Affymetrix U95A	12,626	(Su et al., 2002)
A5 - A6 n=2	GSM18802 - 03	N/A	M/F mix	"	Commercial and Institutions participating in the human thyroid RNA study	N/A	GPL1074	GNF1H	22,639	(Su et al., 2004)
A7 - A8 n=2	GSM18961 - 62	N/A	M/F mix	"	"	N/A	GPL96	Affymetrix U133A	22,283	(Su et al., 2004)
A9 n=1	GSM44685	N/A	M/F mix	"	Commercial human thyroid RNA	N/A	GPL96	Affymetrix U133A	22,283	(Ge et al., 2005)
A10...A13 n=4	GSM80864...67	25y, 38y, 39y, 30y	3 M 1 F	"	Institutions participating in the study	0 h - 8.5 h	GPL570	Affimetric U133 Plus 2.0	54,675	(Roth et al., 2006)
A14...A18 n=5	GSM175954 GSM176418...21	N/A	1 M/F mix 3 M 1 F	"	"	N/A	GPL570	Affimetric U133 Plus 2.0	54,675	N/A
A19...A21 n=3	GSM194528...30	N/A	N/A	"	Commercial human thyroid RNA	N/A	GPL2986	ABI Human Genome Survey Microarray Version 2	32,878	(Dezso et al., 2008)
A22 - A23 n=2	GSM201392 - 93	N/A	M/F mix	"	"	N/A	GPL1291	Hitachisoft AceGene Human Oligo Chip 30K 1 Chip Version	30,336	(Kato et al., 2008)
A24...A31	GSM422030...37	68y	8 F	"	"	N/A	GPL6254	Phalanx Human	30,968	(Abu-Khudir

n=8								OneArray		et al., 2010)
A32...A35 n=4	GSM671268...71	N/A	N/A	"	Institutions participating in the study	N/A	GPL96	Affymetrix U133A	22,283	(Giordano et al., 2006; Giordano et al., 2005)
<b>Pool B - Thyroid adjacent to papillary thyroid carcinoma (33,242 mapped loci following analysis by TRAM) (n=40)</b>										
B1...B9 n=9	GSM77362 - 64 - 66 - 68 - - 70 - 72 - 74 - 76 - 78	42 y, 43 y, 33 y, 56 y, 36 y, 48 y, 43 y, 65 y, 31 y	5 M 4F	Normal thyroid tissue adjacent to papillary thyroid carcinoma (PTC) tumors	"	"	GPL570	[HG-U133_Plus_2] Affymetrix Human Genome U133 Plus 2.0 Array	54,675	(He et al., 2005)
B10...B16 n=7	GSM85215...21	N/A	N/A	"	N/A	N/A	"	"	"	N/A
B17...B20 n=4	GSM139002...05	71 y, 34 y, 29 y, 21 y	1 M 3 F	Normal thyroid tissue adjacent to papillary thyroid carcinoma (PTC) tumors	"	N/A	GPL570	[HG-U133_Plus_2] Affymetrix Human Genome U133 Plus 2.0 Array	54,675	(Vasko et al., 2007)
B21...B40 n=20	GSM723329...38 - GSM723349 - 51 - 53 - 55 - 57 - 59 - 61 - 63 - 65 - 67	37 y, 29 y, 36 y, 38 y, 32 y, 59 y, 68 y, 68 y, 33 y, 47 y	5 M 5 F	"	"	N/A	"	"	"	N/A

From the left to right: our study ID; GEO (Gene Expression Omnibus) sample ID; sex, when it is available; sample type; sample collection; post-mortem interval (PMI) before freezing; GEO platform name; platform type; platform spot number and GEO experiment reference. All sample IDs and platforms IDs marked with \* are related to ArrayExpress database. <sup>a</sup>This is the ArrayExpress experiment number provided because the only sample number does not allow to identify data source. N/A: not available.

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