

**Supplemental Table 1. QPCR validation of microarray data**

Target gene	Comment	Differential regulation in thyroid after 24 h in response to 5.9 Gy from <sup>131</sup> I compared with untreated control	
		QPCR (thyroid cDNA) log <sub>2</sub>	Microarray data (thyroid total RNA) log <sub>2</sub>
<i>Atp2a1</i>	different probe locations <sup>†</sup>	8.5	5.3
<i>Ccnd1</i>	validated	-1.1	-0.92
<i>Ccng1</i>	validated	0.89	0.81
<i>Klk1b16</i>	different probe locations <sup>‡</sup>	-7.1	-5.7
<i>Myh2</i>	validated	4.3	4.3
<i>Pck1</i>	validated	1.8	1.2
<i>Pvalb</i>	validated	4.1	5.2
<i>Tpm2</i>	validated	5.7	4.5

Reference genes were chosen from microarray data that showed lowest overall transcriptional variation (i.e. *Cyp11b1*, *Rptn*, and *Prg3*).

<sup>†</sup>QPCR assay at location 1248; microarray probe at location 3361

<sup>‡</sup>QPCR assay at location 1051; microarray probe at location 1126