

**Supplemental Table 1: Preparation of the in-house cell lines distributed in the 2013 and 2014 ESP EQA schemes**

Title	Sensitive detection methods are key to identify secondary EGFR c.2369C>T p.(Thr790Met) in non-small cell lung cancer tissue samples.
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Provider	Sample type	Scheme year	Ratio <i>EGFR</i> mutated cell-line/ <i>EGFR</i> wild-type cell line	1 <sup>st</sup> <i>EGFR</i> Variant	VAF variant 1 (in %)	2 <sup>nd</sup> <i>EGFR</i> variant	VAF variant 2 (in %)
ESP	Cell line	2013	50%/50%	c.2369C>T p.(Thr790Met)	25 <sup>†</sup>	c.2573T>G p.(Leu858Arg)	25 <sup>†</sup>
		2014	90%/10%		45 <sup>†</sup>		45 <sup>†</sup>
			50%/50%		25 <sup>†</sup>		25 <sup>†</sup>

In-house cell lines were created by mixing cell lines with the *EGFR* mutation with an *EGFR*-wild-type cell line in a ratio indicated in the respective column. The homogeneous mixed cells were fixed for one hour in neutral-buffered formalin, mixed with warm agar (all cells distributed in 4 tubes) and the agar plugs were embedded in paraffin-blocks conform standard histopathology procedures. Paraffin blocks were cut to sections with a thickness of 4-5 µm, and were provided on glass slides. Refseq *EGFR*: LRG\_304t1 (NM\_005228.4). <sup>†</sup>Variant allele frequency based on the percentage of tumor cells. E.g. cell line of 50% tumor cells in a wild-type background was considered as a VAF of 25%. Abbreviations: *EGFR*, epidermal growth factor receptor; ESP, European Society of Pathology; LRG, Locus Reference Genomic; VAF, variant allele frequency.