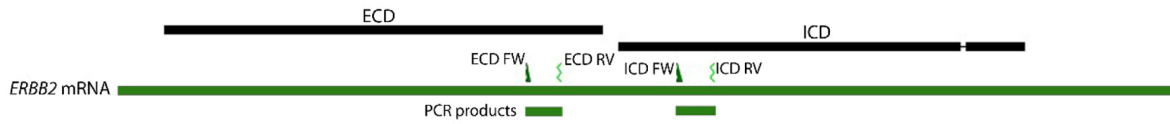


SUPPLEMENTARY MATERIAL

Supplementary Figure



Supplementary Figure 1. Schematic representation of the *ERBB2* ICD and ECD primers location with the correspondence of the proteins domains in the mRNA sequence, resulting from the analysis in Geneious Prime® (2019.1.3).

Supplementary Tables

Supplementary Table 1. ERBB2 DNA and RNA quantification (ICD and ECD transcripts) of each tumor sample using a disease-free tissue collected from de same donor to normalize the data. Values are mean \pm SD. A cut-off ≥ 2 times was considered as biologically significant.

	<i>ERBB2</i> copy number			<i>ERBB2</i> ICD RNA			<i>ERBB2</i> ECD RNA		
	DFT	FMT	Status	DFT	FMT	Status	DFT	FMT	Status
1	1.00 (± 0.04)	0.78 (± 0.13)	=	1.00 (± 0.10)	0.67 ($\pm 3.61 \times 10^{-3}$)	=	1.00 (± 0.02)	0.67 (± 0.04)	=
2	1.00 (± 0.12)	13.71 (± 0.99)	+	1.00 ($\pm 1.32 \times 10^{-3}$)	0.57 (± 0.03)	=	1.00 (± 0.15)	0.49 (± 0.04)	=
3	1.00 (± 0.03)	1.25 (± 0.08)	=	1.00 ($\pm 4.01 \times 10^{-3}$)	0.09 ($\pm 2.12 \times 10^{-3}$)	-	1.00 (± 0.20)	0.04 ($\pm 4.58 \times 10^{-4}$)	-
4	1.00 (± 0.10)	1.06 (± 0.08)	=	1.00 (± 0.01)	2.31 (± 0.03)	+	1.00 (± 0.27)	3.46 (± 0.29)	+
5	1.00 (± 0.02)	0.61 (± 0.10)	=	1.00 (± 0.05)	14.97 (± 0.61)	+	1.00 (± 0.01)	32.00 (± 9.06)	+
6	1.00 (± 0.03)	0.80 (± 0.03)	=	1.00 (± 0.02)	2.98 (± 0.42)	+	1.00 (± 0.22)	4.13 (± 1.00)	+
7	1.00 (± 0.0)	0.79 (± 0.17)	=	1.00 (± 0.02)	5.79 (± 0.17)	+	1.00 (± 0.10)	6.85 (± 0.86)	+
8	1.00 (± 0.12)	0.59 (± 0.05)	=	1.00 ($\pm 2.27 \times 10^{-3}$)	0.11 ($\pm 4.90 \times 10^{-3}$)	-	1.00 ($\pm 2.54 \times 10^{-4}$)	0.29 (± 0.04)	-
9	1.00 (± 0.04)	0.17 (± 0.04)	-	1.00 (± 0.09)	2.77 (± 0.20)	+	1.00 ($\pm 3.70 \times 10^{-3}$)	2.52 (± 0.48)	+
10				1.00 (± 0.01)	0.36 ($\pm 4.41 \times 10^{-4}$)	-	1.00 (± 0.08)	0.32 (± 0.03)	-
11	1.00 (± 0.12)	0.75 (± 0.18)	=	1.00 (± 0.01)	0.01 ($\pm 2.73 \times 10^{-3}$)	-	1.00 (± 0.05)	0.01 ($\pm 7.19 \times 10^{-6}$)	-
12	1.00 (± 0.13)	0.70 (± 0.02)	=	1.00 (± 0.08)	0.48 (± 0.06)	-	1.00 (± 0.02)	0.46 (± 0.04)	-
13	1.00 (± 0.06)	0.09 (± 0.02)	-	1.00 (± 0.14)	1.26 (± 0.04)	=	1.00 (± 0.05)	1.13 (± 0.01)	=
14	1.00 (± 0.03)	1.00 (± 0.03)	=	1.00 (± 0.09)	2.53 (± 0.49)	+	1.00 (± 0.10)	3.62 (± 0.07)	+
15	1.00 (± 0.03)	1.18 (± 0.06)	=	1.00 (± 0.03)	130.82 (± 0.06)	+	1.00 (± 0.17)	153.84 (± 19.48)	+
16	1.00 (± 0.11)	0.75 (± 0.05)	=	1.00 (± 0.05)	2.33 (± 0.12)	+	1.00 (± 0.08)	2.54 (± 0.03)	+
17	1.00 (± 0.11)	5.20 (± 0.78)	+	1.00 (± 0.19)	2.32 (± 0.22)	+	1.00 (± 0.18)	3.05 (± 0.57)	+
18	1.00 (± 0.14)	1.19 (± 0.31)	=	1.00 ($\pm 2.82 \times 10^{-3}$)	7.62 (± 0.47)	+	1.00 (± 0.08)	10.86 (± 0.63)	+
19	1.00 (± 0.09)	0.73 (± 0.13)	=	1.00 (± 0.09)	0.90 (± 0.28)	=	1.00 (± 0.02)	1.55 (± 0.08)	=
20	1.00 (± 0.06)	0.73 (± 0.13)	=	1.00 (± 0.06)	4.60 (± 0.06)	+	1.00 (± 0.21)	3.59 (± 0.25)	+
21				1.00 (± 0.02)	0.82 (± 0.01)	=	1.00 (± 0.03)	0.67 ($\pm 3.48 \times 10^{-3}$)	=
22	1.00 (± 0.18)	0.19 (± 0.02)	-	1.00 (± 0.16)	9.92 (± 1.05)	+	1.00 (± 0.18)	10.67 (± 1.31)	+
23	1.00 (± 0.07)	0.10 ($\pm 2.60 \times 10^{-3}$)	-	1.00 (± 0.04)	0.23 ($\pm 8.06 \times 10^{-3}$)	-	1.00 (± 0.07)	0.32 (± 0.01)	-
24	1.00 (± 0.08)	0.54 (± 0.05)	=	1.00 (± 0.05)	0.29 (± 0.04)	-	1.00 (± 0.05)	0.76 (± 0.02)	=
25	1.00 (± 0.05)	1.79 (± 0.49)	=	1.00 (± 0.04)	0.87 (± 0.05)	=	1.00 (± 0.21)	1.30 (± 0.43)	=
26	1.00 (± 0.09)	0.11 (± 0.02)	-	1.00 (± 0.05)	1.07 (± 0.10)	=	1.00 ($\pm 6.48 \times 10^{-4}$)	0.46 (± 0.04)	-
27	1.00 (± 0.08)	1.14 (± 0.09)	=	1.00 (± 0.01)	1.31 (± 0.02)	=	1.00 (± 0.03)	0.69 (± 0.01)	=

Supplementary Table 2. *TOP2α* DNA and RNA quantification of each tumor sample using a disease-free tissue collected from the same donor to normalize the data. Values are mean ± SD. A cut-off ≥ 2 times was considered as biologically significant.

	<i>TOP2α</i> DNA			<i>TOP2α</i> RNA		
	Disease-free	Tumor	Status	Disease-free	Tumor	Status
1	1.00 (±0.14)	0.85 (±0.07)	=	1.00 (±3.00x10 ⁻³)	0.44 (±0.04)	-
2	1.00 (±0.08)	8.83 (±0.75)	+	1.00 (±0.09)	0.79 (±0.03)	=
3	1.00 (±0.03)	1.34 (±0.12)	=	1.00 (±0.08)	0.53 (±0.07)	=
4	1.00 (±0.11)	1.09 (±0.06)	=	1.00 (±0.04)	21.14 (±2.72)	+
5	1.00 (±0.03)	0.31 (±0.04)	-	1.00 (±0.05)	54.14 (±1.21)	+
6	1.00 (±0.06)	0.74 (±0.10)	=	1.00 (±0.08)	10.95 (±0.34)	+
7	1.00 (±0.16)	0.81 (±0.07)	=	1.00 (±0.01)	59.95 (±3.45)	+
8	1.00 (±0.08)	0.70 (±0.04)	=	1.00 (±7.50x10 ⁻⁵)	0.92 (±0.01)	=
9	1.00 (±0.05)	0.22 (±0.02)	-	1.00 (±0.11)	15.13 (±1.77)	+
10				1.00 (±0.17)	0.31 (±0.01)	-
11	1.00 (±0.07)	0.65 (±0.04)	=	1.00 (±0.05)	0.06 (±3.01x10 ⁻³)	-
12	1.00 (±0.07)	0.67 (±0.04)	=	1.00 (±0.04)	2.46 (±0.23)	+
13	1.00 (±0.11)	0.53 (±0.03)	=	1.00 (±0.03)	15.28 (±1.42)	+
14	1.00 (±0.07)	0.63 (±0.08)	=	1.00 (±0.08)	9.56 (±0.45)	+
15	1.00 (±0.06)	0.84 (±0.17)	=			
16	1.00 (±0.15)	1.50 (±0.17)	=	1.00 (±0.01)	13.39 (±1.35)	+
17	1.00 (±0.07)	2.89 (±0.13)	+	1.00 (±0.02)	11.05 (±1.77)	+
18	1.00 (±0.06)	0.56 (±0.06)	=	1.00 (±0.01)	46.58 (±4.58)	+
19	1.00 (±0.07)	0.67 (±3.00x10 ⁻³)	=	1.00 (±0.09)	7.88 (±0.93)	+
20	1.00 (±0.13)	0.43 (±0.03)	-	1.00 (±0.11)	260.11 (±21.79)	+
21	1.00 (±0.28)	0.68 (±0.03)	=	1.00 (±0.13)	1.58 (±0.06)	=
22	1.00 (±0.05)	0.10 (±0.01)	-			
23	1.00 (±0.02)	0.10 (±0.02)	-	1.00 (±0.05)	0.51 (±0.01)	=
24	1.00 (±0.17)	0.93 (±0.05)	=	1.00 (±0.06)	1.98 (±0.47)	=
25	1.00 (±0.12)	0.76 (±0.04)	=	1.00 (±0.03)	15.38 (±1.57)	+
26	1.00 (±0.01)	0.16 (±0.01)	-	1.00 (±0.01)	2.61 (±0.03)	+
27	1.00 (±0.10)	0.83 (±0.10)	=	1.00 (±0.13)	1.45 (±0.31)	=

Supplementary Table 3. Sequence of the primers used in this work.

	Forward	Reverse
<i>ERBB2</i> DNA	GAGTGC GGTAAGACAGGGAG	GTCTGCACAAGTCCGAGAT
<i>ERBB2</i> ICD RNA	GGTGTTC TCGGACATGGTCT	CTCCCAAAGCCAACAAAGAA
<i>ERBB2</i> ECD RNA	AGGAATGCCGAGTATTGCAG	GGTCCTTG TAGTGGGCACAG
<i>TOP2α</i>	ACAGGTGGTCGAAATGGCTA	ATTCTCTACTGGCTGTTCC

Supplementary Table 4. Standard curve parameters.

	R ²	Efficiency (%)
<i>ERBB2</i> DNA	0.996	97.99
<i>TOP2α</i> DNA	0.998	100.72
<i>ERBB2</i> ICD RNA	0.99	98.11
<i>ERBB2</i> ECD RNA	0.99	102.17
<i>TOP2α</i> RNA	0.999	96.693