

**Supplemental Table 2. ER and PR IHC results in paired untreated primary tumor and treated tumor**

Case	ESR1 alteration	Tumor with ESR1 alteration	ER (% intensity, clone)		PR (% intensity, clone)	
			Tumor 1 (Untreated)	Tumor 2 (Treated)	Tumor 1 (Untreated)	Tumor 2 (Treated)
1	p.D538G(c.1613A>G)	Tumor2	95S, 6F11	95M, 6F11	95S, 1E2	50M, 1E2
2	p.D538G(c.1613A>G)	Tumor2	90S, 6F11	95S, 6F11	10W-M, 1E2	80M-S, 1E2
3	p.Y537S(c.1610A>C)	Tumor2	95 M-S, 6F11	95S, 6F11	90S, 1E2	85-90S, 1E2
4	p.D538G(c.1613A>G), p.Y537C(c.1610A>G)	Tumor2	95S, 6F11	99S, 6F11	90S, 1E2	99S, 1E2
5	p.S463P(c.1387T>C), Amplification	Tumor2	20M, 1D5	80M, 1D5	25M, PgR636	15S, PgR636
6	p.D538G(c.1613A>G)	Tumor2	100S, 6F11	99M, 6F11	0, 1E2	95W-M, 1E2
7	p.D538G(c.1613A>G)	Tumor2	80S, 6F11	70W-M, 6F11	10M, 1E2	5W, 1E2
8	p.F461V(c.1381T>G)	Tumor2	90S, N/A	99S, 6F11	50S, N/A	95S, 1E2
9	p.D538G(c.1613A>G)	Tumor2	65S, 1D5	99S, 6F11	<1W, PgR636	5-10W, 1E2
10	p.L536Q(c.1607_1608TC>AG)	Tumor2	90S, 6F11	95S, 6F11	30M, PgR636	30M-S, 1E2
11	p.D538G(c.1613A>G)	Tumor2	95S, 6F11	90M-S, 6F11	20M, 1E2	50M, 1E2
12*	p.E380Q(c.1138G>C)	Tumor2	75M, 1D5	95S, 6F11	15M, PgR636	1M, 1E2
13	p.Y537S(c.1610A>C)	Tumor2 <sup>†</sup>	90S, SP1	80M, 6F11	25S, 1E2	90S, 1E2
14	p.D538G(c.1613A>G)	Tumor2	80S, N/A	90S, 6F11	0, N/A	90S, 1E2
15*	p.V422del (c.1265_1267delTGG)	Tumor2	99S, 6F11	80S, 6F11	95S, 1E2	0, 1E2
16*	p.D538G(c.1613A>G)	Tumor2	80M-S, 6F11	70W, 6F11	40M-S, 1E2	<1W, 1E2
17	p.Y537S(c.1610A>C)	Tumor2	97S, SP1	75S, 6F11	0, 1E2	5M, 1E2
18	p.D538G(c.1613A>G)	Tumor2	80S, N/A	90S, 6F11	80S, N/A	90S, 1E2

19*	p.D538G(c.1613A>G)	Tumor2	95S, SP1	80S, 6F11	20S, 1E2	<1W, 1E2
20	p.Y537C(c.1610A>G)	Tumor2	90S, 1D5	99S, SP1	40M, PgR636	99S, 1E2
21	p.D538G(c.1613A>G)	Tumor2	90S, N/A	95S, 6F11	<10W, N/A	2M, 1E2
22	p.D538G(c.1613A>G)	Tumor2	83S, 1D5	99S, 6F11	12S, PgR636	50W-M, 1E2
23	p.K520fs(c.1560dupA)	Tumor1 <sup>§</sup>	65M, 6F11	90S, 6F11	60M, 1E2	20S, 1E2
24	p.D538G(c.1613A>G)	Tumor2 <sup>†</sup>	90S, N/A	99S, 6F11	70S, N/A	60M, 1E2
25	Amplification	Tumor2	40S, N/A	90S, 6F11	40S, N/A	60S, 1E2
26	p.E380Q(c.1138G>C)	Tumor2	90S, SP1	90S, 6F11	90S, 1E2	90S, 1E2
27	p.L536Q(c.1607_1608TC>AG)	Tumor2	100S, SP1	90M, 6F11	80S, 1E2	80M-S, 1E2
28	Amplification	Tumor2	91S, SP1	95S, 6F11	66M, 1E2	95S, 1E2
29	Amplification	Tumor2	90S, 1D5	95M-S, 6F11	0, PgR636	0, 1E2
30	Amplification	Tumor1 <sup>§</sup>	99S, 6F11	100S, SP1	95S, 1E2	90M-S, 1E2
31	Amplification	Tumor2	100S, 1D5	99S, 6F11	50S, PgR636	5-10S, 1E2
32	p.D538G(c.1613A>G)	Tumor2	95S, N/A	95S, 6F11	60-70M-S, N/A	95M-S, 1E2
33	p.Y537S(c.1610A>C)	Tumor2	100S, SP1	60S, 6F11	30S, 1E2	90S, 1E2
34	p.Y537S(c.1610A>C)	Tumor2	90S, N/A	90M-S, 6F11	2M-S, N/A	90S, 1E2

\*Samples with absent/reduced PR expression in Tumor 2

†Primary tumor, post endocrine therapy

§Primary tumor, no endocrine therapy

S, Strong; M, Moderate; W, Weak; N/A, Not available