

Table S1 Differences in HER2 immunohistochemical staining among different antibody clones

Reference slides	HER2 score	Antibody clones (n)			P-value (Fisher's exact test)		
		MXR001 (13)	4B5(19)	LDTs (13)	MXR001 vs. 4B5	MXR001 vs. LDTs	4B5 vs. LDTs
HER2 2+, FISH-	0	0(0%)	0(0%)	1(2.22%)	0.003	0.59	<0.001
	1+	3(6.67%)	15(33.33%)	1(2.22%)			
	2+	10(22.22%)	4(8.89%)	11(24.44%)			
	3+	0(0%)	0(0%)	0(0%)			
HER2 0	0	7(15.56%)	16(35.56%)	7(15.56%)	0.017	1	0.063
	1+	6(13.33%)	1(2.22%)	5(11.11%)			
	2+	0(0%)	2(4.44%)	1(2.22%)			
	3+	0(0%)	0(0%)	0(0%)			
HER2 3+, heterogeneous	0	0(0%)	0(0%)	0(0%)	0.011	0.015	0.311
	1+	0(0%)	0(0%)	2(4.44%)			
	2+	4(8.89%)	15(33.33%)	9(20%)			
	3+	9(20%)	4(8.89%)	2(4.44%)			

Table S2 Differences in HER2 immunohistochemical staining among different staining platforms

Reference slides	HER2 score	Staining platforms								P-value
		Ventana	Leica BOND MAX	DAKO Link 48	Thermo	Titan	Ultra- PATH	CNT 300/330	Manual	
HER2 2+, FISH-	0	0 _a	0 _a	0 _a	0 _a	0 _a	0 _a	0 _a	1 _a	0.002
	1+	16 _a	1 _b	0 _b	0 _b	0 _b	0 _b	0 _b	2 _b	
	2+	1 _a	3 _b	3 _b	3 _b	2 _b	2 _b	3 _b	8 _b	
HER2 0	0	17 _a	1 _b	3 _{a, b}	2 _{a, b}	0 _b	0 _b	1 _b	5 _b	<0.001
	1+	0 _a	3 _b	0 _{a, b}	0 _{a, b}	2 _b	2 _b	1 _{a, b}	6 _b	
	2+	0 _a	0 _a	0 _a	1 _a	0 _a	0 _a	1 _a	0 _a	
HER2 3+, heterogeneous	1+	0 _a	0 _a	0 _a	1 _a	0 _a	0 _a	0 _a	1 _a	0.036
	2+	16 _a	2 _{a, b}	2 _{a, b}	0 _b	0 _b	2 _{a, b}	1 _{a, b}	5 _{a, b}	
	3+	1 _a	2 _{a, b}	1 _{a, b}	2 _{a, b}	2 _b	0 _{a, b}	2 _{a, b}	5 _{a, b}	

Note: The same superscript letters indicate subsets of categories whose column proportions do not differ significantly from each other at the 0.05 level.

