

Supplemental Table 1. Demographics and PSA-based parameters (**Hybritech** and WHO standardization) in the overall study population

		Benign	Cancer	Total	<i>p</i> -value
	N	462	430	892	
Age	Median	63.0	63.0	63.0	0.477
	Mean \pm SD	62.6 \pm 7.0	63.0 \pm 7.0	62.8 \pm 7.0	
	Range	50 - 84	50 - 84	50 - 84	
PSA Hybritech (ng/mL)	Median	5.1	5.3	5.1	0.199
	Mean \pm SD	5.3 \pm 1.9	5.4 \pm 1.9	5.4 \pm 1.9	
	Range	2.0 - 10.0	2.0 - 9.8	2.0 - 10.0	
fPSA Hybritech (ng/mL)	Median	1.0	0.7	0.9	<0.001
	Mean \pm SD	1.0 \pm 0.5	0.9 \pm 0.5	1.0 \pm 0.5	
	Range	0.1 - 4.3	0.2 - 3.9	0.1 - 4.3	
%fPSA Hybritech	Median	18.8	15.1	17.0	<0.001
	Mean \pm SD	20.0 \pm 8.0	16.4 \pm 7.6	18.3 \pm 8.0	
	Range	3.1 - 53.2	3.7 - 51.1	3.1 - 53.2	
Phi Hybritech	Median	30.3	42.2	34.7	<0.001
	Mean \pm SD	33.9 \pm 15.0	49.2 \pm 31.3	41.3 \pm 25.5	
	Range	13.7 - 98.2	10.2 - 325.8	10.2 - 325.8	
PSA WHO (ng/mL)	Median	4.0	4.2	4.1	0.168
	Mean \pm SD	4.2 \pm 1.5	4.3 \pm 1.4	4.3 \pm 1.5	
	Range	1.6 - 7.9	1.6 - 7.8	1.6 - 7.9	
fPSA WHO (ng/mL)	Median	0.8	0.6	0.7	<0.001
	Mean \pm SD	0.8 \pm 0.4	0.7 \pm 0.4	0.7 \pm 0.4	
	Range	0.1 - 3.5	0.1 - 3.2	0.1 - 3.5	

%fPSA WHO	Median	18.5	14.7	16.7	<0.001
	Mean \pm SD	19.6 \pm 7.8	16.1 \pm 7.4	17.9 \pm 7.8	
	Range	3.0 - 49.5	3.6 - 51.4	3.0 - 51.4	
<i>Phi WHO</i>	Median	34.5	47.4	39.8	<0.001
	Mean \pm SD	38.6 \pm 17.1	56.1 \pm 35.9	47.0 \pm 29.1	
	Range	15.6 - 112.7	11.8 - 377.3	11.8 - 377.3	
[-2]proPSA (pg/mL)	Median	12.9	14.1	13.3	0.003
	Mean \pm SD	14.4 \pm 7.1	16.8 \pm 11.1	15.5 \pm 9.3	
	Range	2.9 - 43.5	2.9 - 93.5	2.9 - 93.5	

Supplemental Table 2. Comparison of *phi* distribution with Hybritech and WHO calibrations (above and below the cut-off values at 95% sensitivity)

	Hybritech		
WHO	<21.3	≥21.3	Total
<24.3	91	4	95
≥24.3	4	793	797
Total	95	797	892