1. Overview

Cell Cycle Phospho-Specific Array includes 76 highly specific and well-characterized phosphorylation antibodies in the Cell Cycle pathway; each has six replicates. The phospho-specific antibodies bind to and detect the protein only when phosphorylated at the specific site. The non-phospho pairs of the phospho-specific antibodies are included in the array to allow comparison based on phosphorylation state. The antibodies are printed on standard-size coated glass microscope slides and can be scanned on all microarray scanners that are compatible with 76 x 25 x 1 mm (3 in. x 1 in. x 1mm) slides.

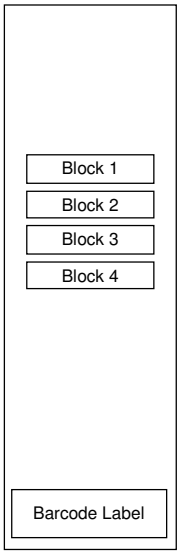
2. Feature

- Unique collection of phospho-specific antibodies and their non-phospho pairs
- Microarray format for high throughput expression profiling protein extracts from cells, frozen or FFPE tissues, or serum samples
- Each antibody is spotted with six replicates for more reliable and consistent results
- 3-D polymer based glass substrates
- High specificity and affinity; low background
- Suitable for detection on all fluorescent microarray scanners compatible with 76 x 25 x 1mm slides
- GenePix® Array List (GAL) files are provided for convenient and accurate data analysis
- Antibody Array Assay Kit provides optimized reagents and buffers for protein extraction, labeling, conjugation and detection

3. Application

- Protein expression profiling (Qualitative)
- Measure changes in phosphorylation status at specific sites
- Compare profiles of normal, diseased or treated samples
- Identify candidate biomarkers

4. Array Layout



Block 1

	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12	c13	c14	c15	c16	c17	c18	c19	c20	c21	c22	c23	c24
r1	P	E	E	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	P
r2	P	E	E	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	P
r3	P	E	E	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	P
r4	P	E	E	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	P
r5	P	E	E	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	P
r6	P	E	E	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	P

Block 2

	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12	c13	c14	c15	c16	c17	c18	c19	c20	c21	c22	c23	c24
r1	P	E	E	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	P
r2	P	E	E	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	P
r3	P	E	E	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	P
r4	P	E	E	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	P
r5	P	E	E	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	P
r6	P	E	E	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	P

Block 3

	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12	c13	c14	c15	c16	c17	c18	c19	c20	c21	c22	c23	c24
r1	P	E	E	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	P
r2	P	E	E	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	P
r3	P	E	E	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	P
r4	P	E	E	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	P
r5	P	E	E	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	P
r6	P	E	E	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	P

Block 4

	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12	c13	c14	c15	c16	c17	c18	c19	c20	c21	c22	c23	c24
r1	P	E	E	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	N	A	G	N	P
r2	P	E	E	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	N	A	G	N	P
r3	P	E	E	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	N	A	G	N	P
r4	P	E	E	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	N	A	G	N	P
r5	P	E	E	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	N	A	G	N	P
r6	P	E	E	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	N	A	G	N	P

A = Beta actin
E = Empty
G = GAPDH
N = Negative Control
P = Positive Marker

5. Antibody List

H=Human, M=Mouse, R=Rat

ID	Antibody Name	Reactivity	Isotype	Source	Entraz Gene Database			Notes
					Human	Mouse	Rat	
1	GSK3β(Phospho-Ser9)	HMR	IgG	Rabbit	2932	56637	84027	
2	GSK3α(Phospho-Ser21)	HMR	IgG	Rabbit	2931	245619	50686	
3	Myc(Phospho-Thr58)	HM	IgG	Rabbit	4609	17869		
4	Myc(Phospho-Thr358)	HMR	IgG	Rabbit	4609	17869	24577	
5	Myc(Phospho-Ser373)	HMR	IgG	Rabbit	4609	17869	24577	
6	p95/NBS1(Phospho-Ser343)	H	IgG	Rabbit	4683			
7	p73(Phospho-Tyr99)	HMR	IgG	Rabbit	7161		362675	
8	Chk2(Phospho-Thr68)	HMR	IgG	Rabbit	11200	50883	114212	
9	p53(Phospho-Ser6)	HM	IgG	Rabbit	7157	22059		
10	p53(Phospho-Ser9)	H	IgG	Rabbit	7157			
11	p53(Phospho-Ser15)	H	IgG	Rabbit	7157			
12	p53(Phospho-Thr18)	H	IgG	Rabbit	7157			
13	p53(Phospho-Ser33)	H	IgG	Rabbit	7157			
14	p53(Phospho-Ser37)	H	IgG	Rabbit	7157			
15	p53(Phospho-Ser46)	H	IgG	Rabbit	7157			
16	p53(Phospho-Ser315)	H	IgG	Rabbit	7157			
17	BRCA1(Phospho-Ser1524)	H	IgG	Rabbit	672			
18	cdc25C(Phospho-Ser216)	H	IgG	Rabbit	995			
19	Chk1(Phospho-Ser345)	HMR	IgG	Rabbit	1111	12649	140583	
20	c-Abl(Phospho-Tyr412)	HM	IgG	Rabbit	25	11350		
21	Rb(Phospho-Ser795)	HMR	IgG	Rabbit	5925	19645	24708	
22	Rb(Phospho-Ser807)	HMR	IgG	Rabbit	5925	19645	24708	
23	Rb(Phospho-Ser780)	HMR	IgG	Rabbit	5925	19645	24708	
24	CDK2(Phospho-Thr160)	HM	IgG	Rabbit	1017	12566	246381	
25	cdc25A (Phospho-Ser75)	HMR	IgG	Rabbit	993	12530	171102	
26	Chk1(Phospho-Ser280)	HMR	IgG	Rabbit	1111	12649	140583	
27	Chk1(Phospho-Ser317)	HR	IgG	Rabbit	1111		140583	
28	Chk2(Phospho-Ser516)	H	IgG	Rabbit	11200			
29	HDAC4(Phospho-Ser632)	HMR	IgG	Rabbit	9759	208727	84579	
30	HDAC5(Phospho-Ser498)	HMR	IgG	Rabbit	10014	15184	84580	
31	HDAC8(Phospho-Ser39)	HMR	IgG	Rabbit	55869	70315		
32	SMC1(Phospho-Ser957)	HM	IgG	Rabbit	27127	24061		
33	p21Cip1(Phospho-Thr145)	H	IgG	Rabbit	1026			
34	p27Kip1(Phospho-Ser10)	HMR	IgG	Rabbit	1027	12576	83571	
35	p27Kip1(Phospho-Thr187)	HMR	IgG	Rabbit				
36	BRCA1(Phospho-Ser1423)	H	IgG	Rabbit	672			
37	CDC2(Phospho-Tyr15)	HMR	IgG	Rabbit	983	12534	107833	
38	GSK3β（Ab-9)	HMR	IgG	Rabbit	2932	56637	84027	
39	GSK3α(Ab-21)	HM	IgG	Rabbit	2931	245619		
40	Myc(Ab-58)	HMR	IgG	Rabbit	4609	17869	24577	
41	Myc(Ab-358)	HMR	IgG	Rabbit	4609	17869	24577	
42	Myc(Ab-373)	HMR	IgG	Rabbit	4609	17869	24577	
43	p95/NBS1(Ab-343)	H	IgG	Rabbit	4683			
44	p73(Ab-99)	HMR	IgG	Rabbit	7161		362675	
45	p53(Ab-6)	HM	IgG	Rabbit	7157	22059		
46	p53(Ab-9)	HMR	IgG	Rabbit	7157	22059	301300	
47	p53(Ab-15)	H	IgG	Rabbit	7157			
48	p53(Ab-18)	H	IgG	Rabbit	7157			
49	Chk2(Ab-68)	HMR	IgG	Rabbit	11200	50883	114212	
50	p53(Ab-33)	H	IgG	Rabbit	7157			
51	p53(Ab-37)	H	IgG	Rabbit	7157			
52	p53(Ab-46)	H	IgG	Rabbit	7157			
53	p53(Ab-315)	H	IgG	Rabbit	7157			
54	Rb(Ab-795)	HMR	IgG	Rabbit	5925	19645	24708	
55	Rb(Ab-807)	HMR	IgG	Rabbit	5925	19645	24708	
56	Rb(Ab-780)	HMR	IgG	Rabbit	5925	19645	24708	
57	CDK2(Ab-160)	HM	IgG	Rabbit	1017	12566	246381	
58	Chk1(Ab-280)	H	IgG	Rabbit	1111			
59	Chk1(Ab-317)	HR	IgG	Rabbit	1111		140583	
60	Chk2(Ab-516)	HMR	IgG	Rabbit	11200	50883	114212	
61	BRCA1(Ab-1524)	H	IgG	Rabbit	672			
62	HDAC4(Ab-632)	HMR	IgG	Rabbit	9759	208727	84579	
63	HDAC5(Ab-498)	HMR	IgG	Rabbit	10014	15184	84580	
64	HDAC8(Ab-39)	HMR	IgG	Rabbit	55869	70315		
65	cdc25C(Ab-216)	H	IgG	Rabbit	995			
66	Chk1(Ab-345)	HMR	IgG	Rabbit	1111	12649	140583	
67	ATM(Ab-1981)	HM	IgG	Rabbit	472	11920		

68	p21Cip1(Ab-145)	H	IgG	Rabbit	1026			
69	p27Kip1(Ab-10)	HMR	IgG	Rabbit	1027	12576	83571	
70	p27Kip1(Ab-187)	HMR	IgG	Rabbit	1027	12576	83571	
71	c-Abl(Ab-412)	HM	IgG	Rabbit	25	11350		
72	HDAC2(Ab-394)	HMR	IgG	Rabbit	3066	15182	84577	
73	cdc25A (Ab-75)	HMR	IgG	Rabbit	993	12530	171102	
74	SMC1(Ab-957)	HM	IgG	Rabbit	27127	24061		
75	BRCA1(Ab-1423)	H			672			
76	CDC2(Ab-15)	HMR	IgG	Rabbit	983	12534	107833	