Supporting Information

Electrochemical genetic profiling of single cancer cells

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Table S#1. Reverse transcription (RT) primers

Gene	*Forward primer (5'-3')*	*Reverse primer (5'-3')*
CD24	caacaactggaacttcaagtaa	gaagagactggctgttgac
CD44	ctggggactctgcctc	tcagcggcctccgtc
HUWE1	tgaggagcagccacaga	ccacccaaaggtcgct
CDH1	attcctgccattctggggattc	ctgggggcagtaagggctcttt
ERBB2	ccctgttctccgatgtgtaa	gctcatggcagcagtcagt
KRT19	ctggtaccagaagcaggg	gaagtcatctgcagccagac
CDH2	catcacagtgacagatgtcaatg	tgatccttatcggtcacagttag

Table S#2. MLPA primer sequences

	Sequence (5' – 3')
Forward PCR primer	Cy3-gggttccctaagggttgga
Reverse PCR primer	Biotin-ggacgcgccagcaagatccaatctaga

Table S#3. MLPA probes and barcodes

MARKER	TARGET SEQUENCE DETECTED (5'-3')	Barcode (5'-3') attached to 3`of RHO
CD24	LHO: caagtaactcctcccagagtacttccaact (30)	
	SO: ctgggttggccccaaatccaacta (24)	
	RHO: atgccaccaccaaggcggctggtggtgccctgca (34)	tctacaggctcgtatatgta (20)
CD44	LHO: tgccgctgagcctggcgcagatcgattt (28)	
	SO: gaatataacctgccgctttgcaggtgtat (29)	
	RHO: tccacgtggagaaaaatggtcgctacagcatctc (34)	catcgcacgaatataataca (20)
HUWE1	LHO: ccaccaagctgaagggcaaaatgcagagcaggtttgac (38)	
	RHO: atggctgagaatgtggtaattgtggcatctcag (33)	attacgacgaactcaatgaa (20)
CDH1	LHO: ccttggaggaattcttgctttgctaattctgat (33)	
	RHO: tctgctgctcttgctgtttcttcggaggagagcg (34)	ataggctggttcgtaatcgg (20)
ERBB2	LHO: cgttctgaggattgtcagagcctg (24)	
	RHO: acgcgcactgtctgtgccggtggctgtg (28)	ctaagtagccgaattcctag (20)
KRT19	LHO: tgggccctcccgcgactacagccactactacac (33)	
	SO: gaccatccaggacctgcgggacaagattcttgg (33)	
	RHO: tgccaccattgagaactccaggattgtcctgcagatcgacaa (42)	aaccttagagcggattaggg (20)
CDH2	LHO: caatcctccagagtttactgccatgacgtt (30)	
	RHO: ttatggtgaagttcctgagaacagggtagacatcatagta gctaat (47)	ttaccgttgaaatcgatcga (20)

Table S#4 Electrochemical sensor array surface probes (5' – 3').

CD24	SH-T15-tacatatacgagcctgtaga
CD44	SH-T15-gtattatattcgtgcgatg
CDH1	SH-T15-ccgattacgaaccagcctat
CDH2	SH-T15-tcgatcgatttcaacggtaa
KRT19	SH-T15-ccctaatccgctctaaggtt
ERBB2	SH-T15-ctaggaattcggctacttag
HUWE1	SH-T15-ttcattgagttcgtcgtaat

Table S#5 Synthetic amplicons and URP (5' – 3').

CD24:
g**ggttccctaagggttgga**caagtaactcctcccagagtacttccaactaatccaactaatgccaccaccaaggcggctggtggtgccctgcatctac
aggctcgtatatgtatctagattggatcttgctggcgcgtcc

ERBB2
g**ggttccctaagggttgga**cgttctgaggattgtcagagcctgacgcgcactgtctgtgccggtggctgtgctaagtagccgaattcctagtctagattg
gatcttgctggcgcgtcc

HRP labelled universal reporter oligonucleotide probe (URP) – Complementary to all targets

HRP- tccaacccttagggaacc

Please note that sequences highlighted with underline bind to corresponding immobilised probe and sequences highlighted in bold bind to URP.