

Table 2. Genes oppositely modulated by C3 and by activated Rho/CRIK

GenBank accession number	Gene name	Gene function	Z score C3	Z score Rho	Z score CRIK-SK
Genes up-regulated by C3 (Z score > 1.96) and down-regulated by Rho and CRIK-SK (Z score < -1.96)					
AI790103	Interferon induced transmembrane protein 3-like - <i>Ifitm3l</i>	Cellular component; integral to membrane	4.098	-2.180	-2.198
M31885	Inhibitor of DNA binding 1 - <i>Idb1</i>	Development; negative regulation of transcription from Pol II promoter; nucleus; regulation of angiogenesis	4.008	-3.394	-2.107
AJ005559	Small proline-rich protein 2A - <i>Spr2a</i>	Structural molecule activity and constituent of cytoskeleton; cornified envelope	3.671	-11.028	-2.284
M81445	Gap junction membrane channel protein β 2 - <i>Gjb2</i>	Gap-junction forming channel activity; protein binding; connexon channel activity	7.622	-3.556	-5.404
AI851218	RIKEN cDNA 4933409L06 gene		2.222	-2.349	-3.399
Genes down-regulated by C3 (Z score < -1.96) and up-regulated by Rho and CRIK-SK (Z score > 1.96)					
D88793	Cysteine and glycine-rich protein 1 - <i>Csrp1</i>	Actin cytoskeleton; actin cytoskeleton organization and biogenesis; nucleus; protein binding; zinc ion binding	-2.024	8.764	2.464
U88588	Cerebellar degeneration-related 2 - <i>Cdr2</i>		-2.686	2.144	2.142
U51805	Arginase 1, liver - <i>Arg1</i>	Arginase activity; arginase activity; catalytic activity; hydrolase activity; manganese ion binding	-4.201	4.168	2.033
AI836423	Proteasome (prosome, macropain) 26S subunit, ATPase, 6 - <i>Psmc6</i>	ATP binding; ATPase activity; cytosol; nucleotide binding; nucleus; proteasome complex (sensu Eukarya)	-2.281	1.995	2.247
Z19543	Calponin 2 - <i>Cnn2</i>	Actin binding; calmodulin binding; smooth muscle contraction	-2.581	5.069	3.014
AI845237	Chloride intracellular channel 4 (mitochondrial) - <i>Clic4</i>	Chloride channel activity; chloride transport; integral to membrane; ion channel activity; ion transport; voltage-gated chloride channel activity; voltage-gated ion channel activity	-2.317	3.479	1.964

X95591	Nuclear DNA binding protein - <i>Cld</i>	DNA binding; ligand-dependent nuclear receptor interactor activity; negative regulation of transcription; protein binding; transcription corepressor activity;	-2.101	2.321	2.579
AW048944	Protein kinase C, δ binding protein - <i>Prkcdbp</i>		-5.046	7.923	8.357
L29468	Cofilin 2, muscle - <i>Cfl2</i>	Actin binding; cytoskeleton; intracellular; nucleus	-2.687	4.504	2.127
AW124049	DNA segment, Chr 5, ERATO Doi 593, expressed - <i>D5Ertd593e</i>		-4.641	2.611	2.106
AI195392	Striamin - <i>Strm</i>	Actin binding; calcium ion binding	-2.410	3.608	2.495
AI843884	DNA segment, Chr 6, ERATO Doi 32, expressed - <i>D6Ertd32e</i>		-2.859	2.260	2.002
D16250	Bone morphogenetic protein receptor, type 1 ^o - <i>Bmpr1a</i>	ATP binding; kinase activity; protein serine/threonine kinase activity; receptor activity; transferase activity; transforming growth factor β receptor activity; transforming growth factor β receptor signaling pathway; transmembrane receptor protein serine/threonine kinase activity	-2.005	2.219	2.145
X16490	Serine (or cysteine) proteinase inhibitor, clade B, member 2 - <i>Serpib2</i>	Serine-type endopeptidase inhibitor activity; plasminogen activator activity	-4.593	2.251	1.979
AI837625	Cysteine and glycine-rich protein 1 - <i>Csrp1</i>	Actin cytoskeleton; actin cytoskeleton organization and biogenesis; nucleus; protein binding; zinc ion binding	-2.222	9.541	3.894
AI839417	Moesin - <i>Msn</i>	Cytoskeletal protein binding; structural molecule activity	-2.115	2.440	2.509
AV138783	Growth arrest and DNA-damage-inducible 45 β - <i>Gadd45b</i>	Activation of MAPKK; regulation of cell cycle; protein binding; apoptosis; cell differentiation; negative regulation of protein kinase activity	-9.001	3.087	2.171
AA833425	RIKEN cDNA 3110003A17 gene - <i>3110003A17Rik</i>		-2.009	3.189	2.436

AW061337	Adenylate kinase 4 - <i>Ak4</i>	ATP binding; GTP binding; adenylate kinase activity; kinase activity; mitochondrion; phosphotransferase activity, phosphate group as acceptor; transferase activity	-2.064	2.760	4.312
U41739	Four and a half LIM domains 1 - <i>Fhll</i>	Cell differentiation; cell growth; development; muscle development	-6.649	9.203	4.354
AI839950	Four and a half LIM domains 1 - <i>Fhll</i>	Cell differentiation; cell growth; development; muscle development	-3.590	7.597	2.312
AF033017	Potassium channel, subfamily K, member 1 - <i>Kcnk1</i>	Voltage-gated ion channel activity; Ion channel activity; Potassium channel activity	-3.090	2.571	3.406
X13297	Actin, α 2, smooth muscle, aorta - <i>Acta2</i>	Cytoskeleton; cytoskeleton organization and biogenesis; structural constituent of cytoskeleton	-5.702	10.484	4.862

Table 2. Genes oppositely modulated by C3 and by activated Rho/CRIK in keratinocytes. PolyA+ RNA was prepared from primary mouse keratinocytes in low calcium medium after 48-h infection with recombinant adenoviruses expressing RhoV14, CRIK-SK or GFP control. cRNA probes were tested in duplicate by hybridization to Affimetrix U74A gene chips as in the previous experiment, and data were similarly collected and analyzed. Less stringent but still statistically significant criteria (Z score >1.96 or < -1.96) (1) were adopted for a comparative analysis and more comprehensive identification of genes that are oppositely regulated by C3 treatment and activated by RhoA and CRIK expression in keratinocytes. Shown are all genes that were identified by this analysis, together with corresponding Z score values as well as folds of induction or suppression.

1. Quackenbush, J. (2002) *Nat Genet.* **32**, Suppl, 496-501.