

CD271 is a molecular switch with divergent roles in melanoma and melanocyte development

Supplementary information

Fabian V. Filipp^{1, 2, 3 *}, Chen Li^{4,5}, Alexander D. Boiko^{4,5 *}

¹ Cancer Systems Biology, Institute of Computational Biology, Helmholtz Zentrum München, Ingolstädter Landstraße 1, D-85764, München, Germany.

² School of Life Sciences Weihenstephan, Technical University München, Maximus-von-Imhof-Forum 3, D-85354, Freising, Germany.

³ Systems Biology and Cancer Metabolism, Program for Quantitative Systems Biology, University of California Merced, 5200 North Lake Road, Merced, CA, 95343, USA.

⁴ Sue and Bill Gross Research Stem Cell Center, University of California Irvine, 845 Health Sciences Road, Irvine, CA, 92697, USA.

⁵ Department of Molecular Biology and Biochemistry, University of California Irvine, 845 Health Sciences Road, Irvine, CA, 92697, USA.

* Correspondence: Fabian V. Filipp fabian.filipp@helmholtz-muenchen.de, Alexander D. Boiko aboiko@uci.edu

ORCID DOI: <https://doi.org/10.1038/s41598-019-42773-y>

Supplementary table 1: Melanoma patient samples and their characteristics

Patient ID	Diagnosis and site/Stage	<i>BRAF</i> (V600) status
MEL213	Regional nodal disease; Stage III	WT ^{1,2}
MEL11409	Nevoid melanoma, SQ satellite/in-transit metastasis; Stage III	Mutation ¹
MEL425	Dermal melanoma; Stage III	Mutation ¹
MEL826	Dermal melanoma; Stage IIB	Mutation ^{1,2}
MEL1129	SQ metastatic melanoma; Stage III	ND
MEL1190	SQ metastatic melanoma; Stage IV	ND
MCYT	Normal human epidermal melanocytes	ND

BRAF(V600) genotype verified by ¹high-resolution melt curve analysis (HRMA) or ²Sanger sequencing. ND = not determined.

Supplementary table 2: Oligonucleotides primers used in this study

Gene target	Method	forward (5' → 3')	reverse (3' → 5')
18S	qRT-PCR	gcccgaagcgtttactttga	tccattattcctagctgcggt
CD271	qRT-PCR	cttctgggggtgtccctt	actcaccgctgtgtgtgta
AKT3	qRT-PCR	tggaggccaagatacttcct	gtttggctttggctcgttctg
HDAC9	qRT-PCR	tcaggatgatgatgcccggtg	tggatttggtgctgctgctg
TCF12	qRT-PCR	aatccccagcaacaacgcat	tggggaaaacatcgactga
LEF1	qRT-PCR	cccgaagaggaaggcgattt	tggccgggatgatttcagac