**Additional File 5:** Search for the expression profile of the genes identified in the RGP and Met libraries in a melanoma microarray study performed by Hoek et al. [92]. The tables contain the lists of the genes represented in the RGP and Met libraries that were detected as differentially expressed between melanocytes and melanoma cell lines in the above cited study.

Table S5: RGP library genes detected as up-regulated in melanoma cells in comparison to melanocytes in the study by Hoek et al [92]\*.

Gene name	Symbol	Accession number
amphoterin induced gene 2	AMIGO2	NM_181847
angiopoietin 1	ANGPT1	NM_001146
adenylate cyclase-associated protein, 2	CAP2	AL832154
decorin	DCN	NM_133503
ectonucleotide pyrophosphatase/phosphodiesterase 1	ENPP1	NM_006208
histone deacetylase 1	HDAC1	NM_004964
lumican	LUM	NM_002345
platelet derived growth factor C	PDGFC	NM_016205
paternally expressed 10	PEG10	NM_015068
pogo transposable element with ZNF domain	POGZ	NM_015100
prostaglandin-endoperoxide synthase 2	PTGS2	NM_000963
secretogranin II (chromogranin C)	SCG2	NM_003469
solute carrier family 38, member 2	SLC38A2	NM_018976

Table S6: Met library genes detected as differentially expressed between melanocytes and melanoma cells in the study by Hoek et al [92]\*.

	Gene name	Symbol	Accession number
Up-regulated in melanoma cells	aldehyde dehydrogenase 1 family, member A3	ALDH1A3	NM_000693
	apolipoprotein D	APOD	NM_001647
	calumenin	CALU	NM_001219
	connective tissue growth factor	CTGF	U14750
	EphA3	EPHA3	NM_005233
	fibronectin 1	FN1	NM_002026
	Homo sapiens G protein-coupled receptor 126	GPR126	NM_020455
	major histocompatibility complex, class II	HLA-DRA	NM_019111
	interleukin 1 receptor accessory protein	IL1RAP	NM_002182
	integrin, alpha 6	ITGA6	NM_000210
	inositol 1,4,5-triphosphate receptor, type 1	ITPR1	NM_002222
	laminin, alpha 4	LAMA4	NM_002290
	lysosomal-associated membrane protein 2	LAMP2	NM_002294
	neuronal cell adhesion molecule	NRCAM	NM_005010
	prion protein (p27-30)	PRNP	NM_183079
	solute carrier family 38, member 2	SLC38A2	NM_018976
	transforming growth factor, beta-induced, 68kDa	TGFBI	NM_000358
	tissue inhibitor of metalloproteinase 3	TIMP3	NM_000362
	transmembrane 4 superfamily member 1	TM4SF1	NM_014220
Down-regulated in melanoma cells	eukaryotic translation initiation factor 1A, Y-linked	EIF1AY	NM_004681
	interferon-induced protein with tetratricopeptide repeats 1 solute carrier family 5 (low affinity glucose cotransporter), member 4	IFIT1	NM_001548
		SLC5A4	NM 014227
	tyrosinase (oculocutaneous albinism IA)	TYR	NM_000372

<sup>\*</sup> The reference number corresponds to the number of the reference list of the main text.