

Fig. S1. (A,B) IF images of U251MG and A549 cells showing integrin $\beta 5$ (green in merge), vinculin **(A)** or clathrin **(B)** (red in merge), actin (blue), DAPI (cyan). Scale bar, 20 μm .

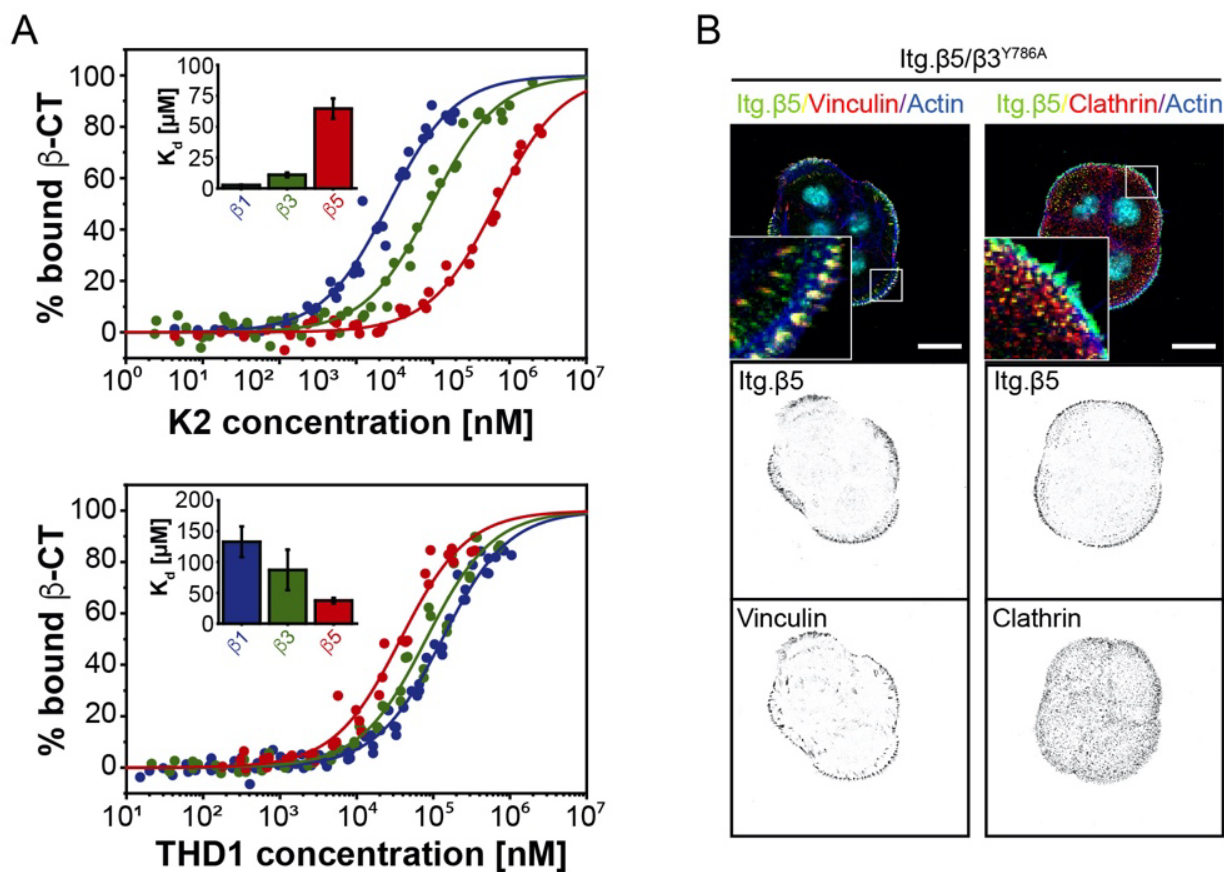


Fig. S2. (A) Titration of kindlin-2 (K2) and talin-1 head domain (THD1) to 200 nM ATTO488-labeled integrin $\beta 1$, $\beta 3$, and $\beta 5$ cytoplasmic tail peptides (β -CT) to measure affinity using MST ($n \geq 3$). **(B)** Colocalization of the integrin $\beta 5^{ex}/\beta 3^{in}$ chimera containing a Y786A mutation in the MD-NxxY motif (green in merge) with vinculin (red; left panel) or clathrin (red; right panel) in $\beta 5$ -deficient PA-JEB/ $\beta 4$ keratinocytes. Actin is shown in blue. Nuclei are stained with DAPI (cyan). Scale bar, 20 μ m.

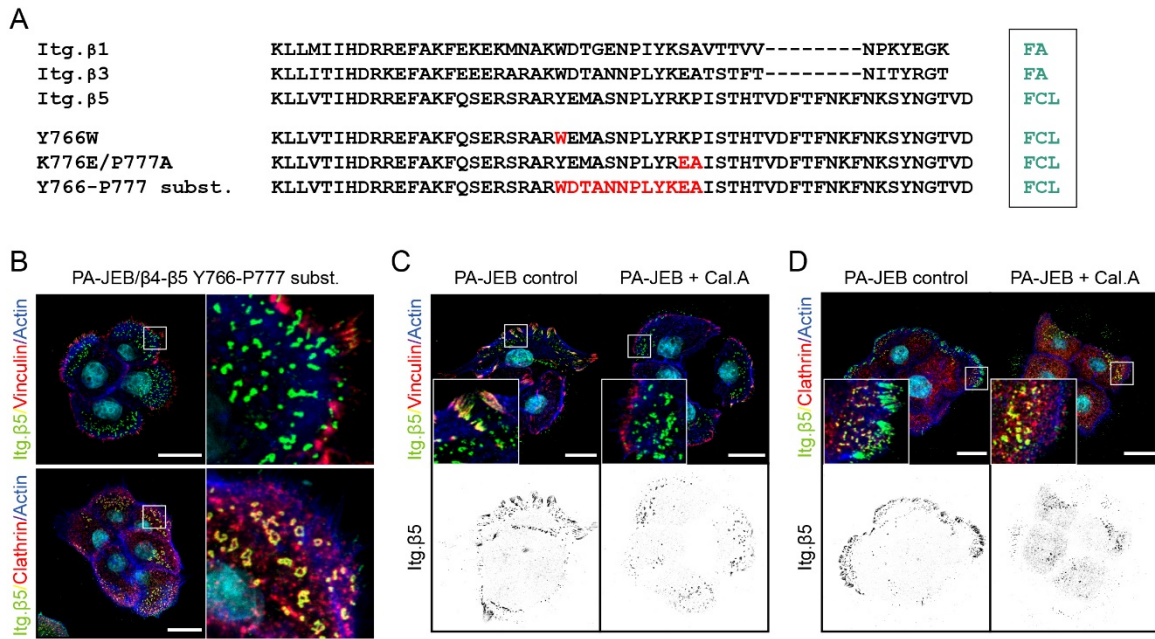


Fig. S3. (A) Amino acid sequences of the cytoplasmic domain of wild-type integrin β 1, β 3, β 5 and β 5 carrying mutations surrounding the membrane-proximal NPLY motif. The subcellular distribution of the integrin β subunits in FAs or FCLs is indicated. **(B)** Representative confocal microscopy images show that the integrin β 5 mutant, carrying a substitution of 12 amino acids from β 3 into β 5 (Y766-P777 subst.) localizes predominantly in FCLs in PA-JEB/ β 4 keratinocytes **(C,D)** PA-JEB keratinocytes were grown in 10% FCS-supplemented DMEM culture medium overnight and then treated with 5 nM calyculin A (Cal.A) or DMSO (vehicle control) for 30 min prior to fixation. Merged images show integrin β 5 (green), vinculin **(B,C)** or clathrin **(B,D)** (red), actin (blue) and the cell nuclei (cyan). Scale bar, 20 μ m.

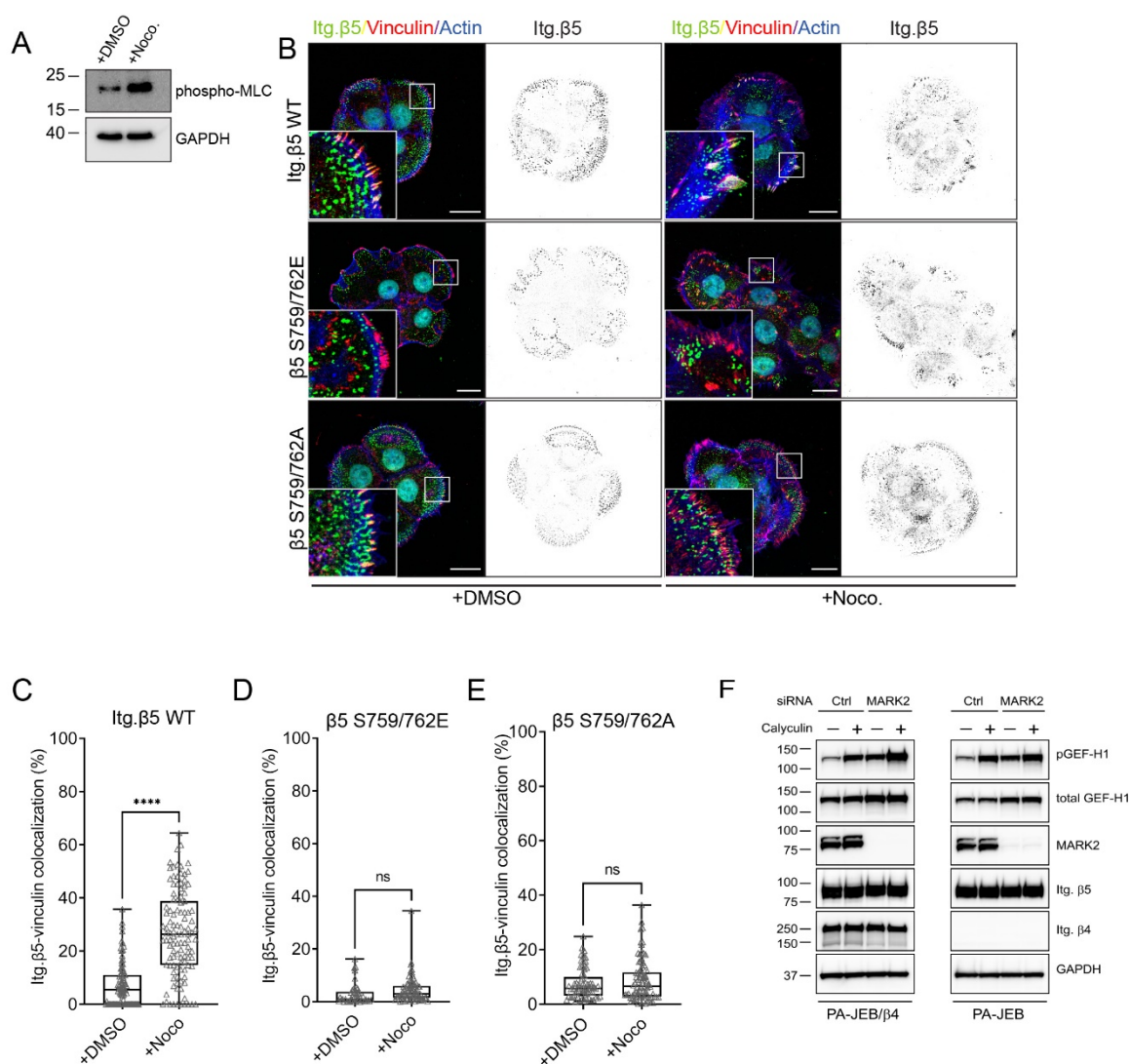


Fig. S4. (A) Representative western blots of phosphorylated myosin light chain (MLC) and GAPDH in PA-JEB/β4 keratinocytes treated with DMSO versus Nocodazole. **(B-E)** Analysis of integrin β5 clustering in FAs **(C)** in β5-deficient keratinocytes expressing wild-type β5, and β5 containing S759/762E or S759/762A mutations. Merged images show integrin β5 (green), vinculin (red), actin (blue) and the cell nuclei (cyan) **(C)**. Scale bar, 20 μm. Quantifications of β5 or β5 mutants clustering in FAs are shown in **(C-E)**. Data were obtained from three independent experiments. Total cells analyzed per condition: 90 (WT, DMSO), 111 (WT, Noco.) **(C)**, 40 (S>E, DMSO), 80 (S>E, Noco.) **(D)**, 65 (S>A, DMSO), 82 (S>A, Noco.) **(E)**. Mann-Whitney U test was performed to determine statistical significance. ****, P < 0.0001. Box plots range from the 25th to 75th percentile; central line indicates the median; whiskers show smallest to largest value. **(F)** Representative western blots of phosphorylated GEF-H1, total GEF-H1 and MARK2 in PA-JEB/β4 and PA-JEB keratinocytes treated with or without siMARK2 combined with calyculin A. Integrin β4, β5 and GAPDH served as controls. (n=3).

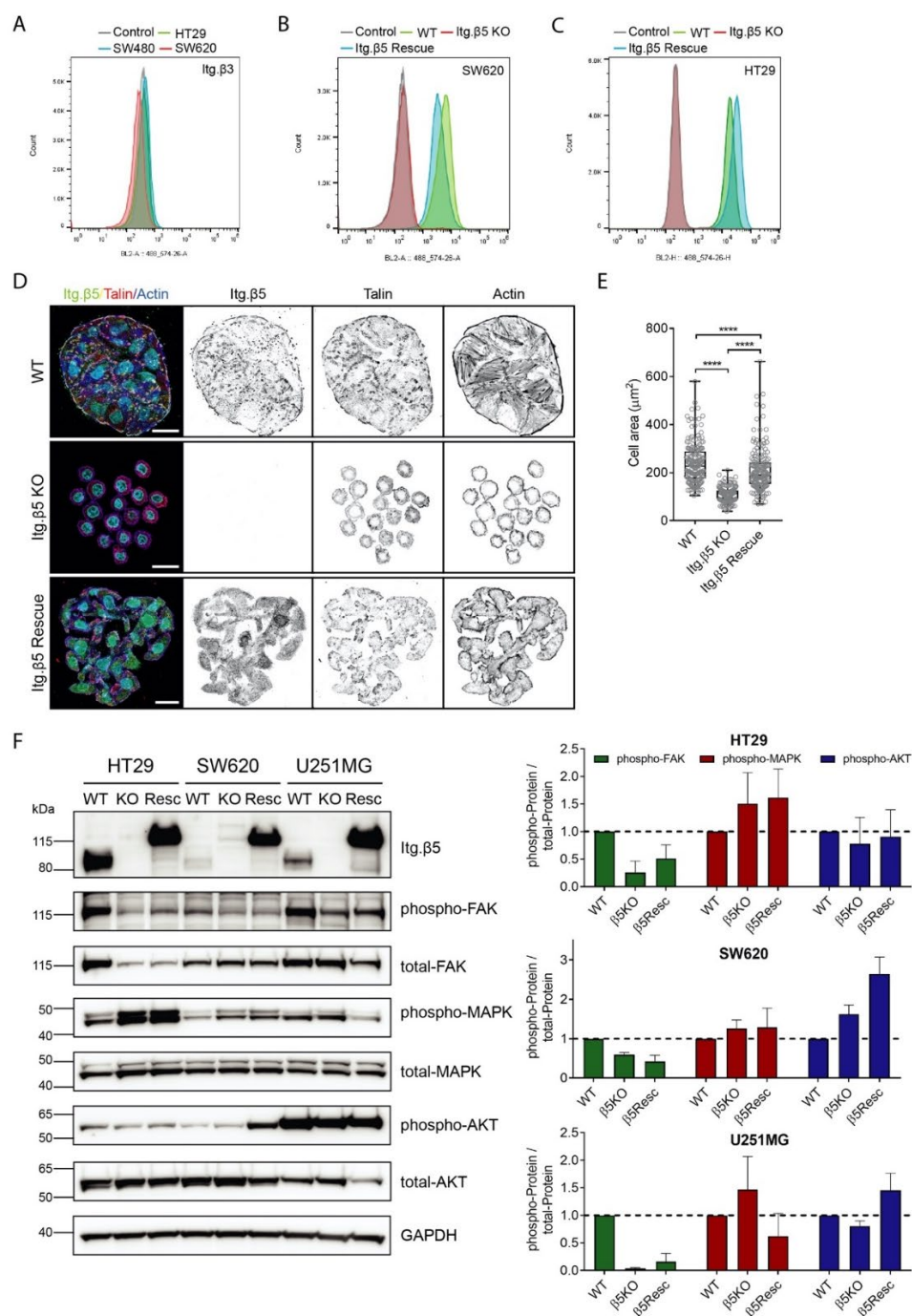


Fig. S5. (A) FACS plots showing the expression of integrin $\beta 3$ in HT29, SW480, and SW620 cells. HT29 cells stained with a secondary PE-conjugated antibody only were used as negative control ($n=3$). **(B,C)** FACS plots showing the expression of $\beta 5$ in SW620 **(B)** and HT29 **(C)** wild-type, $\beta 5$ knockout and rescued cells. Cells stained with a secondary PE-conjugated antibody only were used as negative control ($n=2-3$). **(D)** HT29 cells were fixed after 5 days and merged images show integrin $\beta 5$ (green), talin (red), actin (blue) and the cell nuclei (cyan). Scale bar, 20 μm . **(E)** Quantifications of the cell area of HT29 wild-type, $\beta 5$ knockout and rescued cells. Data were obtained from three independent experiments. Total cells analyzed per condition: 179 (WT), 161 (KO), 172 (Resc.) Mann-Whitney U test was performed to determine statistical significance. ****, $P < 0.0001$. Box plots range from the 25th to 75th percentile; central line indicates the median; whiskers show smallest to largest value. **(F)** Representative western blots of phosphorylated FAK, MAPK, AKT in wild-type, $\beta 5$ -deficient (KO) and $\beta 5$ rescued (Resc.) cell lines. Quantifications of signal intensities of the phosphorylated proteins normalized to total proteins levels are shown ($n=3$; bars show mean with s.d.).

Table S1. Overview of cells that form integrin β 5-containing FCLs

Cells	Adhesion complex	Reference
A375 human melanoma cells A549 human lung carcinoma cells U2OS human osteosarcoma cells CS1 hamster melanoma cells HeLa human cervical carcinoma cells MCF7 human breast carcinoma cells BT549 ductal breast carcinoma cells Human hTERT microvascular endothelial (HME1) cells Human hTERT immortalized retinal pigment epithelial (RPE1) cells Primary mouse aortic endothelial (MAE) cells	“Reticular adhesions”	(Lock et al., 2018)
PA-JEB/ β 4 and HaCaT human keratinocytes	Flat clathrin lattices/plaques	(Zuidema et al., 2018)
HeLa human cervical carcinoma cells* HepG2 human liver carcinoma* Caco-2 human colorectal adenocarcinoma cells* <i>* When cultured on glass or on collagen-coated polyacrylamide 31 kPa gels</i>	“Clathrin-coated plaques”	(Baschieri et al., 2018)
HeLa human cervical carcinoma cells	Flat clathrin lattices/plaques	(Leyton-Puig et al., 2017)
Primary mouse myotubes	Flat clathrin lattices/plaques	(Vassilopoulos et al., 2014)
Primary rat myotubes	“Clathrin-coated membrane domains”	(De Deyne et al., 1998)
M21 human melanoma cells H2981 and UCLA-P3 lung carcinoma cells	“Punctate distribution over the ventral cell surface outside FAs”	(Wayner et al., 1991)

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Table S2. Itg. β 6 vs Itg. β 5_IP_PA-JEB/ β 4

					Two color points Chart 1.	
Gene(s)	-LOG(P-value)	LFQ Abundance ratio (Itg.β6/Itg.β5) (2Log)	Significant or Not Significant FDR = 0.05 and S0 = 0.1	Significant or Not Significant_F DR = 0.05 and S0 = 0.1	Significant	Not significant
IGLV3-9	3,046	3,318	+	Significant	3,318	#N/A
ARHGAP10	4,541	3,607	+	Significant	3,607	#N/A
NOP56	3,240	3,635	+	Significant	3,635	#N/A
ANKRD28	2,092	-3,244	+	Significant	-3,244	#N/A
P4HA2	4,235	3,646	+	Significant	3,646	#N/A
KLK10	1,572	-1,717	+	Significant	-1,717	#N/A
HNRNPR	1,776	1,696	+	Significant	1,696	#N/A
HTRA2	3,736	-4,106	+	Significant	-4,106	#N/A
BUB3	2,754	1,813	+	Significant	1,813	#N/A
MYO1B	4,054	3,411	+	Significant	3,411	#N/A
PRMT3	1,566	-1,977	+	Significant	-1,977	#N/A
C;HIST1H2BD;HIST1H2	4,601	4,542	+	Significant	4,542	#N/A
DKC1	1,495	1,724	+	Significant	1,724	#N/A
H2AFY	3,061	2,289	+	Significant	2,289	#N/A
ECI2	2,425	2,079	+	Significant	2,079	#N/A
UBR5	2,962	-2,597	+	Significant	-2,597	#N/A
NDUFB4	2,331	2,092	+	Significant	2,092	#N/A
ASMTL	1,788	2,473	+	Significant	2,473	#N/A
STAU1	2,392	-3,848	+	Significant	-3,848	#N/A
AIFM1	3,776	2,890	+	Significant	2,890	#N/A
PLG	3,507	3,019	+	Significant	3,019	#N/A
ASS1	2,614	2,433	+	Significant	2,433	#N/A
C5	1,979	-1,223	+	Significant	-1,223	#N/A
LMNA	1,995	1,656	+	Significant	1,656	#N/A
TFRC	3,860	1,440	+	Significant	1,440	#N/A
RPLP0;RPLPOP6	2,117	-0,830	+	Significant	-0,830	#N/A
KRT18	2,723	0,958	+	Significant	0,958	#N/A
IGKV4-1	3,093	1,443	+	Significant	1,443	#N/A
ITGAV	4,376	-1,840	+	Significant	-1,840	#N/A
F;PCL1;HNRNPCL3;HNRN	1,966	2,276	+	Significant	2,276	#N/A
RHOC;RHOA	3,723	2,276	+	Significant	2,276	#N/A
HSP90AB1	2,916	-0,890	+	Significant	-0,890	#N/A
PDHA1	1,438	-2,069	+	Significant	-2,069	#N/A
LGALS1	4,904	3,580	+	Significant	3,580	#N/A
DLD	1,692	-1,450	+	Significant	-1,450	#N/A
H2AFV;H2AFZ	1,461	2,230	+	Significant	2,230	#N/A
F;HIST1H2AH;HIST1H2	2,694	1,792	+	Significant	1,792	#N/A
PABPC1	3,001	0,438	+	Significant	0,438	#N/A
HARS	2,417	1,934	+	Significant	1,934	#N/A
CKMT1A	2,446	-1,097	+	Significant	-1,097	#N/A
P4HA1	2,344	-2,646	+	Significant	-2,646	#N/A

HNRNPL	1,741	1,978	+	Significant	1,978	#N/A
EZR	1,803	-0,968	+	Significant	-0,968	#N/A
HIST1H1B	1,369	2,592	+	Significant	2,592	#N/A
HIST1H1C;HIST1H1E;HIST1H1F	3,791	3,614	+	Significant	3,614	#N/A
PRKACA;PRKACB	2,163	-2,032	+	Significant	-2,032	#N/A
PTPN1	2,271	2,104	+	Significant	2,104	#N/A
ITGB5	3,797	-9,138	+	Significant	-9,138	#N/A
RPL7	2,075	-0,537	+	Significant	-0,537	#N/A
ITGB6	4,613	7,066	+	Significant	7,066	#N/A
ITIH2	3,321	-4,168	+	Significant	-4,168	#N/A
LMNB1	1,502	2,049	+	Significant	2,049	#N/A
SDHB	4,055	-3,434	+	Significant	-3,434	#N/A
TGM2	1,317	-2,680	+	Significant	-2,680	#N/A
FBL	2,017	3,016	+	Significant	3,016	#N/A
HNRNPA2B1	1,781	1,862	+	Significant	1,862	#N/A
SFPQ	1,672	1,161	+	Significant	1,161	#N/A
CFL1	2,713	2,693	+	Significant	2,693	#N/A
DGKA	1,816	-1,688	+	Significant	-1,688	#N/A
AZGP1	3,060	-0,609	+	Significant	-0,609	#N/A
DDX6	2,691	-1,391	+	Significant	-1,391	#N/A
RPL13	2,011	-0,740	+	Significant	-0,740	#N/A
SDHA	3,755	-6,512	+	Significant	-6,512	#N/A
RRM2	4,351	-5,297	+	Significant	-5,297	#N/A
HNRNPH3	1,701	1,231	+	Significant	1,231	#N/A
HNRNPH1	3,266	4,403	+	Significant	4,403	#N/A
YWHAB	3,485	-1,871	+	Significant	-1,871	#N/A
PYCR1	3,905	-2,810	+	Significant	-2,810	#N/A
KIF5B	3,016	-2,852	+	Significant	-2,852	#N/A
MYH10	3,368	4,055	+	Significant	4,055	#N/A
ADD1	2,321	-2,061	+	Significant	-2,061	#N/A
DLST	3,790	-1,732	+	Significant	-1,732	#N/A
ATP6V1A	1,321	5,315	+	Significant	5,315	#N/A
EIF4A3	1,693	1,868	+	Significant	1,868	#N/A
RFC3	2,561	-1,602	+	Significant	-1,602	#N/A
TMPO	1,645	1,498	+	Significant	1,498	#N/A
RPS27	1,932	0,793	+	Significant	0,793	#N/A
MATR3	1,718	3,197	+	Significant	3,197	#N/A
CSNK1A1;CSNK1A1L	2,150	-0,964	+	Significant	-0,964	#N/A
CSNK1D	1,385	-3,044	+	Significant	-3,044	#N/A
NUMB	2,408	2,110	+	Significant	2,110	#N/A
HSD17B4	2,051	0,941	+	Significant	0,941	#N/A
HMGA2	3,275	1,428	+	Significant	1,428	#N/A
ACLY	4,584	-6,383	+	Significant	-6,383	#N/A
VCP	3,146	-4,291	+	Significant	-4,291	#N/A
NHP2L1	1,938	2,498	+	Significant	2,498	#N/A
HNRNPK	1,935	1,262	+	Significant	1,262	#N/A
YWHAG	4,423	-1,788	+	Significant	-1,788	#N/A
RPS8	2,212	-0,660	+	Significant	-0,660	#N/A
RPS15A	3,084	-0,355	+	Significant	-0,355	#N/A
YWHAE	5,886	-1,540	+	Significant	-1,540	#N/A

SNRPD3	2,590	1,957	+	Significant	1,957	#N/A
HIST1H4A	1,726	2,102	+	Significant	2,102	#N/A
RPL8	2,982	-0,930	+	Significant	-0,930	#N/A
YWHAZ	5,099	-1,661	+	Significant	-1,661	#N/A
GTF2I	2,948	-3,183	+	Significant	-3,183	#N/A
SLC25A11	2,523	0,509	+	Significant	0,509	#N/A
REL	2,530	1,645	+	Significant	1,645	#N/A
YWHAH	3,560	-2,246	+	Significant	-2,246	#N/A
CSTF1	2,848	2,495	+	Significant	2,495	#N/A
CALD1	1,551	-2,618	+	Significant	-2,618	#N/A
CKAP4	2,151	-0,809	+	Significant	-0,809	#N/A
KLC1	2,532	-3,055	+	Significant	-3,055	#N/A
GOLGA2	2,251	-2,818	+	Significant	-2,818	#N/A
ILF3	2,106	1,180	+	Significant	1,180	#N/A
CSTF3	2,970	1,971	+	Significant	1,971	#N/A
TRIM28	2,767	1,426	+	Significant	1,426	#N/A
G3BP1	3,934	2,077	+	Significant	2,077	#N/A
PKP1	1,681	1,144	+	Significant	1,144	#N/A
DDX39B;DDX39A	1,526	1,739	+	Significant	1,739	#N/A
CUX1	3,241	-3,089	+	Significant	-3,089	#N/A
CAPRIN1	4,080	4,006	+	Significant	4,006	#N/A
DSC3	2,179	2,226	+	Significant	2,226	#N/A
KPNB1	1,973	0,742	+	Significant	0,742	#N/A
NUMA1	2,245	2,056	+	Significant	2,056	#N/A
GAPVD1	2,583	-10,265	+	Significant	-10,265	#N/A
EBP	2,240	1,856	+	Significant	1,856	#N/A
PLCB4	3,696	-2,618	+	Significant	-2,618	#N/A
PLEC	2,111	0,872	+	Significant	0,872	#N/A
PCBP1	4,077	2,000	+	Significant	2,000	#N/A
SF3B3	2,386	2,005	+	Significant	2,005	#N/A
MAPRE1	2,268	-2,875	+	Significant	-2,875	#N/A
DPYSL2	1,431	1,757	+	Significant	1,757	#N/A
SRSF7	1,485	1,756	+	Significant	1,756	#N/A
UPP1	1,482	3,322	+	Significant	3,322	#N/A
UGP2	2,568	-1,294	+	Significant	-1,294	#N/A
IMMT	1,962	0,824	+	Significant	0,824	#N/A
SMU1	1,879	2,483	+	Significant	2,483	#N/A
TMEM201	1,770	0,806	+	Significant	0,806	#N/A
FAM160B1	2,287	-3,294	+	Significant	-3,294	#N/A
CDC42BPG	3,630	-3,465	+	Significant	-3,465	#N/A
PTRF	2,025	0,649	+	Significant	0,649	#N/A
MARK2	4,950	-8,079	+	Significant	-8,079	#N/A
PM20D2	2,761	2,858	+	Significant	2,858	#N/A
KIAA0319L	3,313	3,185	+	Significant	3,185	#N/A
LSM14A	3,584	-3,960	+	Significant	-3,960	#N/A
MCU	2,069	0,579	+	Significant	0,579	#N/A
NPLOC4	3,408	-4,260	+	Significant	-4,260	#N/A
GEMIN5	3,102	2,212	+	Significant	2,212	#N/A
TTN	4,298	-2,957	+	Significant	-2,957	#N/A
DDX1	3,071	0,786	+	Significant	0,786	#N/A

ARHGEF1	3,709	-4,986	+	Significant	-4,986	#N/A
ARHGEF2	3,429	-4,971	+	Significant	-4,971	#N/A
HOOK2	2,979	-3,713	+	Significant	-3,713	#N/A
EDC3	3,578	3,415	+	Significant	3,415	#N/A
GRAMD3	2,869	2,056	+	Significant	2,056	#N/A
DOCK7	3,216	0,893	+	Significant	0,893	#N/A
CLCC1	1,703	1,127	+	Significant	1,127	#N/A
HNRNPAB	1,388	1,791	+	Significant	1,791	#N/A
C9orf156	3,619	-3,401	+	Significant	-3,401	#N/A
PRKD2	1,978	1,882	+	Significant	1,882	#N/A
VPS33B	2,982	-2,284	+	Significant	-2,284	#N/A
C2orf44	3,465	-5,314	+	Significant	-5,314	#N/A
RPRD1B	2,819	2,038	+	Significant	2,038	#N/A
DDX21	1,903	2,703	+	Significant	2,703	#N/A
ABHD10	2,664	-1,901	+	Significant	-1,901	#N/A
TECR	2,270	0,548	+	Significant	0,548	#N/A
LIMA1	3,399	4,530	+	Significant	4,530	#N/A
PSME2	2,114	-2,077	+	Significant	-2,077	#N/A
CORO1C	2,268	1,837	+	Significant	1,837	#N/A
G3BP2	2,465	1,851	+	Significant	1,851	#N/A
NUDC	5,287	-9,348	+	Significant	-9,348	#N/A
NOP58	2,673	2,825	+	Significant	2,825	#N/A
SNX24	3,260	-3,295	+	Significant	-3,295	#N/A
MTCL1	6,898	-8,439	+	Significant	-8,439	#N/A
MYO5A	2,622	4,691	+	Significant	4,691	#N/A
SAMM50	3,107	2,143	+	Significant	2,143	#N/A
ARFGEF1	4,747	2,728	+	Significant	2,728	#N/A

Table S3. Itg. β 6 vs Itg. β 5_IP_HaCat

Gene(s)	-LOG(P-value)	LFQ Abundance ratio (ITGB6/ITGB5) (2Log)	Significant or Not Significant FDR = 0.05 and S0 = 0.1	Significant or Not Significant_FD R = 0.05 and S0 = 0.1	Two color points Chart 1:	
					Significant	Not significant
IGLV3-9	3,647	4,764	+	Significant	4,764	#N/A
CUX2	4,866	-6,418	+	Significant	-6,418	#N/A
P4HA2	2,776	3,298	+	Significant	3,298	#N/A
HTRA2	2,725	-3,825	+	Significant	-3,825	#N/A
NUDT21	1,612	-1,364	+	Significant	-1,364	#N/A
PPL	2,140	1,788	+	Significant	1,788	#N/A
SYNCRIP	2,151	0,549	+	Significant	0,549	#N/A
PRMT3	3,245	-2,878	+	Significant	-2,878	#N/A
SF3B1	2,063	1,375	+	Significant	1,375	#N/A
ASMTL	2,587	1,611	+	Significant	1,611	#N/A
STAU1	4,005	-5,635	+	Significant	-5,635	#N/A
AIFM1	3,486	3,759	+	Significant	3,759	#N/A
ASS1	3,424	4,328	+	Significant	4,328	#N/A
A2M	3,241	0,844	+	Significant	0,844	#N/A
C3	2,481	0,963	+	Significant	0,963	#N/A
FN1	3,516	-0,897	+	Significant	-0,897	#N/A
TFRC	4,251	1,636	+	Significant	1,636	#N/A
TF	3,080	1,450	+	Significant	1,450	#N/A
RPLP0;RPLPOP6	3,072	-0,905	+	Significant	-0,905	#N/A
ITGAV	4,656	-2,505	+	Significant	-2,505	#N/A
P4HB	3,093	1,251	+	Significant	1,251	#N/A
PABPC1	2,982	1,116	+	Significant	1,116	#N/A
CKMT1A	2,711	-4,101	+	Significant	-4,101	#N/A
PTPN1	3,407	2,621	+	Significant	2,621	#N/A
ITGB5	3,398	-9,331	+	Significant	-9,331	#N/A
RPL7	2,049	-0,729	+	Significant	-0,729	#N/A
ITGB6	5,837	6,534	+	Significant	6,534	#N/A
NCL	3,249	-0,718	+	Significant	-0,718	#N/A
TRIM21	2,786	3,347	+	Significant	3,347	#N/A
ITIH2	4,624	-3,488	+	Significant	-3,488	#N/A
SDHB	2,445	-3,240	+	Significant	-3,240	#N/A
TGM2	1,627	-3,883	+	Significant	-3,883	#N/A
TUBG1;TUBG2	2,148	-1,217	+	Significant	-1,217	#N/A
DNAJB1	2,811	0,978	+	Significant	0,978	#N/A
ATP5A1	2,883	0,715	+	Significant	0,715	#N/A
DDX6	4,457	-7,882	+	Significant	-7,882	#N/A
PTBP1	3,813	3,390	+	Significant	3,390	#N/A
CALR	2,858	-2,595	+	Significant	-2,595	#N/A
CANX	3,278	-2,459	+	Significant	-2,459	#N/A
NOS1	3,207	2,764	+	Significant	2,764	#N/A

RPL12	1,894	-0,889	+	Significant	-0,889	#N/A
ADSL	2,261	-2,230	+	Significant	-2,230	#N/A
SDHA	2,964	-3,699	+	Significant	-3,699	#N/A
RRM2	4,475	-5,004	+	Significant	-5,004	#N/A
YWHAB	2,540	-0,679	+	Significant	-0,679	#N/A
RPL9	2,829	-0,527	+	Significant	-0,527	#N/A
KIF5B	2,756	-2,403	+	Significant	-2,403	#N/A
ADD1	1,545	-1,502	+	Significant	-1,502	#N/A
IGFALS	2,157	-1,410	+	Significant	-1,410	#N/A
ATP6V1A	5,813	7,405	+	Significant	7,405	#N/A
RPL3	2,487	-0,498	+	Significant	-0,498	#N/A
DDOST	2,707	-2,176	+	Significant	-2,176	#N/A
RPL5	2,564	-0,650	+	Significant	-0,650	#N/A
RPL28	2,722	-0,841	+	Significant	-0,841	#N/A
SERPINH1	2,548	1,259	+	Significant	1,259	#N/A
RPL14	3,829	-4,129	+	Significant	-4,129	#N/A
FXR1	3,339	-1,268	+	Significant	-1,268	#N/A
ACLY	3,691	-4,483	+	Significant	-4,483	#N/A
RPL15	4,164	-0,918	+	Significant	-0,918	#N/A
RPL27	2,066	-0,778	+	Significant	-0,778	#N/A
YWHAG	3,938	-1,235	+	Significant	-1,235	#N/A
YWHAE	3,451	-1,530	+	Significant	-1,530	#N/A
RPL30	2,562	-0,968	+	Significant	-0,968	#N/A
RPL10A	1,997	-0,693	+	Significant	-0,693	#N/A
YWHAZ	2,633	-1,092	+	Significant	-1,092	#N/A
TUBA4A	2,270	0,537	+	Significant	0,537	#N/A
GTF2I	2,530	-4,431	+	Significant	-4,431	#N/A
RPL19	2,078	-0,793	+	Significant	-0,793	#N/A
SORD	4,183	-2,960	+	Significant	-2,960	#N/A
KIF23	2,064	1,862	+	Significant	1,862	#N/A
REL	2,462	1,902	+	Significant	1,902	#N/A
YWHAH	2,915	-1,571	+	Significant	-1,571	#N/A
RPL18	1,517	-2,499	+	Significant	-2,499	#N/A
KLC1	2,592	-3,367	+	Significant	-3,367	#N/A
GOLGA2	3,272	-2,922	+	Significant	-2,922	#N/A
ILF2	1,405	-2,024	+	Significant	-2,024	#N/A
TRIM28	2,652	1,496	+	Significant	1,496	#N/A
G3BP1	4,639	3,225	+	Significant	3,225	#N/A
SQSTM1	2,384	1,439	+	Significant	1,439	#N/A
CUX1	3,793	-2,870	+	Significant	-2,870	#N/A
TRIM29	2,865	0,394	+	Significant	0,394	#N/A
DYNC1H1	4,855	-2,966	+	Significant	-2,966	#N/A
MAP7	3,541	-0,449	+	Significant	-0,449	#N/A
CAPRIN1	2,512	3,999	+	Significant	3,999	#N/A
GAPVD1	2,591	-7,647	+	Significant	-7,647	#N/A
PON3	4,823	-4,598	+	Significant	-4,598	#N/A
MAPRE1	3,665	-3,458	+	Significant	-3,458	#N/A
UPP1	1,584	2,921	+	Significant	2,921	#N/A
PTRF	3,381	0,715	+	Significant	0,715	#N/A
MTHFD1L	2,064	-0,631	+	Significant	-0,631	#N/A

MARK2	3,861	-8,390	+	Significant	-8,390	#N/A
LSM14A	2,896	-4,340	+	Significant	-4,340	#N/A
NPLOC4	2,320	-2,413	+	Significant	-2,413	#N/A
GEMIN5	1,548	1,578	+	Significant	1,578	#N/A
PPP1R13L	2,943	0,491	+	Significant	0,491	#N/A
TTN	4,414	-3,141	+	Significant	-3,141	#N/A
ARHGEF1	3,884	-5,010	+	Significant	-5,010	#N/A
UFD1L	2,658	-2,335	+	Significant	-2,335	#N/A
ARHGEF2	4,061	-5,655	+	Significant	-5,655	#N/A
HOOK2	3,353	-4,099	+	Significant	-4,099	#N/A
EDC3	5,349	4,711	+	Significant	4,711	#N/A
DOCK7	3,287	1,886	+	Significant	1,886	#N/A
C9orf156	2,575	-3,518	+	Significant	-3,518	#N/A
PRKD2	3,616	2,962	+	Significant	2,962	#N/A
VPS33B	2,304	-2,709	+	Significant	-2,709	#N/A
OSBPL3	2,268	0,608	+	Significant	0,608	#N/A
RABEP2	3,605	2,175	+	Significant	2,175	#N/A
C2orf44	2,433	-4,974	+	Significant	-4,974	#N/A
VIPAS39	2,249	-3,009	+	Significant	-3,009	#N/A
RPRD1B	2,213	2,055	+	Significant	2,055	#N/A
44448	2,102	1,946	+	Significant	1,946	#N/A
PSME2	4,357	-2,666	+	Significant	-2,666	#N/A
G3BP2	4,495	2,869	+	Significant	2,869	#N/A
NUDC	2,912	-9,358	+	Significant	-9,358	#N/A
SNX24	3,571	-3,336	+	Significant	-3,336	#N/A
MYO5A	2,559	3,808	+	Significant	3,808	#N/A
DNAJC15	2,506	-1,900	+	Significant	-1,900	#N/A
PEX16	1,949	-0,679	+	Significant	-0,679	#N/A
ARFGEF1	2,562	3,544	+	Significant	3,544	#N/A

Table S4. Primary antibody list

Antibody	Clone	Obtained from	Host	Application
Integrin β5	EM09902	Simon Goodman (Merck KGaA)	Rabbit mAb	IF/FACS: 1:200
Integrin β5 - cyto	5HK2	Homemade	Rabbit pAb	WB: 1:1000 IP: 1 μ l / sample
Integrin β1 - cyto	U19	Ulrike Mayer	Rabbit pAb	WB: 1:1000
Integrin β3	C17	Ellen van der Schoot	Mouse mAb	FACS: 1:100
Integrin β6 - cyto	5HK1	Homemade	Rabbit pAb	IP: 1 μ l / sample
Vinculin	VIIIF9	Marina Glukhova	Mouse mAb	IF: 1:5
Talin	8d4	Sigma	Mouse mAb	IF: 1:200 WB: 1:1000
ARH/LDLRAP1		AntibodyPlus (#A7093)	Rabbit pAb	WB: 1:1000
Numb	S.925.4	Invitrogen (#MA5-14897)	Rabbit mAb	WB: 1:1000
Clathrin, Heavy chain	X22	Thermo Fisher (#MA1-065)	Mouse mAb	IF: 1:400
Dab2		Cell Signaling (#12906)	Rabbit mAb	WB: 1:500
Kindlin-1		Homemade (Ussar et al., 2006)	Rabbit pAb	WB: 1:5000
Kindlin-2	3A3	EMD Millipore (#MAB2617)	Mouse mAb	WB: 1:1000
KANK-2		Sigma (#HPA015643)	Rabbit pAb	WB: 1:2000
SNX17		ProteinTech (#10275-1-AP)	Rabbit pAb	WB: 1:1000
Akt-phospho S473		Cell Signaling Technology (#9271)	Rabbit pAb	WB: 1:1000
Akt		Cell Signaling Technology (#9272)	Rabbit pAb	WB: 1:1000
Erk1/2-diphospho		Sigma (#M8159)	Mouse mAb	WB: 1:1000
Erk1/2		Cell Signaling (#9102)	Rabbit pAb	WB: 1:1000
FAK-phospho Y397		Invitrogen (#44624G)	Rabbit pAb	WB: 1:1000
FAK	77	BD Bioscience #610087	Mouse mAb	WB: 1:1000
GEF-H1-phospho S886	E1L6D	Cell Signaling Technology (#14143)	Rabbit mAb	WB: 1:1000
GEF-H1		Abcam (#ab155785)	Rabbit pAb	WB: 1:1000
MARK2		Proteintech (#15492-1-AP)	Rabbit pAb	WB: 1:1000
MARK2		Cell Signaling Technology (#9118)	Rabbit pAb	WB: 1:1000
MLC-phospho S19		Cell Signaling Technology (#3671)	Rabbit pAb	WB: 1:500
P115 RhoGEF	C-19	Santa Cruz	Goat pAb	WB: 1:1000
GAPDH	6C5	EMD Millipore (#CB1001)	Mouse mAb	WB: 1:5000