

92	SCRIB	1,344199081	3,262561162	Significant
93	MYOF	2,003924906	2,574784597	Significant
94	AFAP1L2	2,008192016	2,545626958	Significant
95	PHACTR4	2,077948368	2,438491821	Significant
96	CLMN	1,786895948	2,628778458	Significant
97	MYO1B	2,009816238	2,405704498	Significant
98	PTPN12	1,770341919	2,527658463	Significant
99	KIAA1522	1,434910617	2,782882055	Significant
100	TBC1D2	1,61659234	2,586899439	Significant
101	KIDINS220	1,593514253	2,492033005	Significant
102	TAB1	1,759756465	2,261226018	Significant
103	LARP1	1,735629349	2,248367945	Significant
104	CNOT1	1,804821663	2,127309163	Significant
105	ALMS1	1,89143119	2,016126633	Significant
106	EFHD2	1,530886966	2,349688212	Significant
107	LAMC2	1,77275406	2,102012634	Significant
108	TRIP6	1,752601881	2,068318685	Significant
109	AHNAK	1,796851728	2,004161835	Significant
110	CKAP5	1,695504425	2,085919062	Significant
111	EIF4E2	1,410038458	2,31280454	Significant
112	LUZP1	1,653578751	2,033416748	Significant
113	STRAP	1,351146383	2,279120763	Significant
114	GAPVD1	1,364759025	2,098588943	Significant
115	SEC24A	1,342436151	2,096307755	Significant
N.A.	IL2RA	3,032817452	-7,126452764	Significant

Table S3 α 6-BirA* plus biotin versus IL2R-BirA* plus biotin (n=3)

Hit nr.	gene_name	-Log Student's T-test p-value	Student's T-test Difference	Significant or Not Significant
1	PPFIBP1	4,669456	6,347483	Significant
2	KRT6B	3,111004	7,094639	Significant
3	ITGA6	4,288527	5,560982	Significant
4	ITGB4	4,775116	4,975218	Significant
5	CCT8	3,950828	4,540769	Significant
6	CASKIN2	2,869794	5,001071	Significant
7	PPFIA1	3,255039	4,556779	Significant
8	GIGYF2	2,989378	4,798739	Significant
9	CPSF1	4,077145	3,630538	Significant
10	COL17A1	3,806056	3,784993	Significant
11	AFDN	3,039809	4,351351	Significant
12	TLN1	2,91994	4,389297	Significant
13	FAM135A	3,383138	3,919304	Significant
14	RANBP2	3,08683	3,62579	Significant
15	FERMT2	2,455125	4,022923	Significant
16	ATXN2L	2,702989	3,616952	Significant
17	UBAP2L	2,496555	3,812288	Significant
18	PXN	2,954383	3,328231	Significant
19	TNS3	1,745012	4,476346	Significant
20	DLG1	2,609315	3,538345	Significant
21	RASAL2	3,083443	2,994352	Significant
22	HNRNPK	3,915844	2,144055	Significant
23	SNTB2	2,56236	3,424726	Significant
24	MATR3	3,634498	2,304412	Significant
25	KANK2	2,45178	3,45656	Significant
26	UBAP2	3,573092	2,310243	Significant
27	FLNA	3,237366	2,54853	Significant
28	PHLDB2	2,359253	3,390733	Significant
29	PEAK1	2,468034	3,219858	Significant
30	FUS	1,374602	4,165538	Significant
31	S100A9	2,112974	3,355374	Significant
32	PHLDB1	2,493957	2,838808	Significant
33	CPSF7	1,840395	3,39662	Significant
34	BCL9L	2,346201	2,765827	Significant
35	RUVBL1	2,680651	2,320124	Significant
36	PLEC	2,225699	2,706984	Significant
37	KEAP1	2,538155	2,375415	Significant
38	CRK	1,56615	3,283579	Significant
39	IGF2BP2	1,631004	3,077057	Significant
40	NUMB	2,042991	2,58675	Significant
41	SERPINB2	2,569307	2,052409	Significant
42	EPS15L1	1,835766	2,744539	Significant
43	LAMC2	1,748527	2,822986	Significant
44	RUVBL2	2,245734	2,261399	Significant

45	PPP1R13L	2,186067	2,316207	Significant
46	ZDHC5	2,065901	2,403255	Significant
47	ERBIN	2,006092	2,428099	Significant
48	XRN1	1,596127	2,833532	Significant
49	MRTFB	1,438106	2,841951	Significant
50	RBM27	1,802634	2,413303	Significant
	DVL1;			
51	DVL1P1	1,981644	2,080001	Significant
52	FAM83H	1,476162	2,473873	Significant
53	NIBAN2	1,802916	2,117793	Significant
54	DLG5	1,642364	2,168767	Significant
55	FUBP3	1,592617	2,172834	Significant
56	TJP2	1,45394	2,308683	Significant
57	SNX1	1,402968	2,278321	Significant
N.A.	IL2RA	2,721453	-6,57328	Significant
N.A.	ITGB1	2,062781	-2,60988	Significant

Table S4 β 4-BirA* plus biotin CD151 proficient vs deficient (n=3)

Hit nr.	gene_name	-Log Student's T-test p-value	Student's T-test Difference	Significant or Not Significant
	ACTR1A;			
1	ACTR1B	2,883732626	2,465718587	Significant
2	RAB11FIP5	3,402613417	1,666626612	Significant
3	LCN1	2,268364451	2,268799464	Significant
	MYL12A;			
4	MYL12B	1,40990162	2,174990336	Significant
5	DPM1	1,89853465	1,309476217	Significant
6	STON2	2,226312941	0,796698252	Significant
7	NBAS	1,408316234	1,369881312	Significant
8	CFL1	1,467073348	0,689799627	Significant
9	S100A10	2,301280868	-1,701531092	Significant
10	AHR	4,39578979	-4,764198303	Significant
11	ITGA3	2,218476443	-2,697850545	Significant

Table S5 Identified $\alpha 6\beta 4$ interactome in keratinocytes versus $h\beta 4$ -BirA interactors in MDCK cells*

$\alpha 6\beta 4$ interactors in keratinocytes	Common	$\beta 4$ interactors in MDCK cells
AFAP1L2	AHNAK	37500
AFDN	AHNAK2	ACSL3
ALMS1	CCT8	ALDH3A2
ANKRD50	CD2AP	ANKLE2
ARHGAP32	COL17A1	ARHGEF12
ATXN2L	COPG2	C2CD2
BCAR3	CORO1B	CAPZB
BCL9L	CRK	CCT2
C6orf132	CTTN	CCT3
CAMSAP1	EIF4G1	CCT4
CASKIN2	ERC1	CCT6A
CKAP5	HCFC1	CCT7
CLMN	ITGA6	CKAP4
CNOT1	ITGB4	CLCC1
CPSF1	KIAA1217	COPG1
CPSF7	NUP133	CSDE1
DBNL	PDLIM5	DSG2
DLG1	PHLDB1	EIF2AK3
DLG5	PHLDB2	EIF5
DPYSL2	RANBP2	EMC1
DST	RANGAP1	EMD
DVL1; DVL1P1	RUVBL1	EML4
DVL3	RUVBL2	ESYT1
EFHD2	SEC23B	EVPL
EIF4E2	STRAP	FAM91A1
EPB41	TJP1	GRAMD3
EPS15	TJP2	INF2
EPS15L1	TNKS1BP1	JUP
ERBIN	TNS3	KPNB1
EZR	UTRN	KTN1
FAM135A		LBR
FAM83H		LRBA
FASN		MIA3
FERMT2		MOSPD2
FLNA		NAP1L4
FLNB		NUP214
FLNC		NUP62
FUBP3		OSBPL11
FUS		PDAP1
GAPVD1		PDZD8

GEMIN5
GIGYF2
GSDME
HAUS6
HNRNPK
IGF2BP2
KANK1
KANK2
KEAP1
KIAA1522
KIDINS220
KNL1
KRT6B
LAMC2
LARP1
LIMD1
LUZP1
MATR3
MRE11
MRTFB
MYO1B
MYOF
NIBAN2
NUMB
NUMBL
NUP155
PAICS
PEAK1
PGAM5
PHACTR4
PLEC
PLEKHA5
PPFIA1
PPFIBP1
PPP1R13L
PRAG1
PTPN12
PXN
RAI14
RASAL2
RBM27
S100A9
SARG
SCRIB
SEC24A
SEPTIN11

PPL
RANBP3
RDX
RRBP1
SEC13
SEC16A
SEC24B
SgK223
SHROOM2
SRPR
SSFA2
STIM1
TACC1
TCP1
TMPO
TOR1AIP1
UBXN4
VAPA
VAPB
VCPIP1
WDR11

SERPINB2
SNTB2
SNX1
STON2
SUMO1; SUMO1P1
SYNJ1
TAB1
TANC1
TBC1D2
TLN1
TNS4
TRIP6
UBAP2
UBAP2L
USP15
VCL
XRN1
ZDHC5
ZYG

***Myllymäki et al. MCP 2019; Table S1; Proteins that were more than 3-fold enriched in h β 4-BirA samples relative to the BirA-negative control**