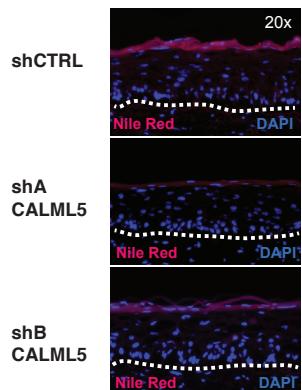
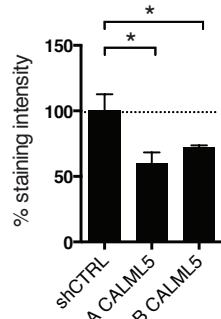
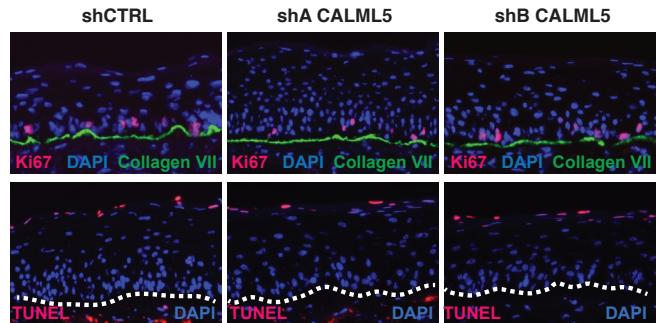
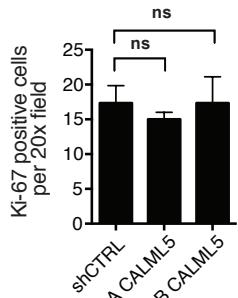
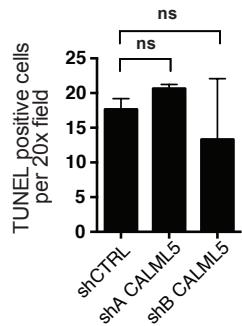
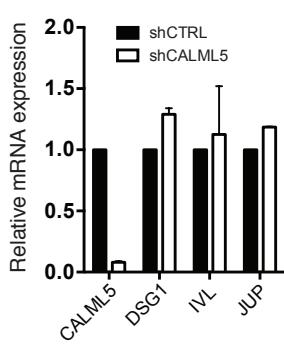
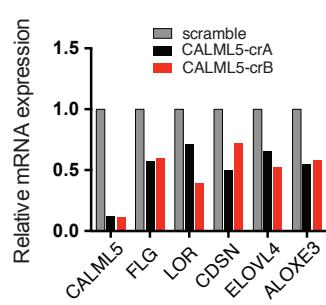
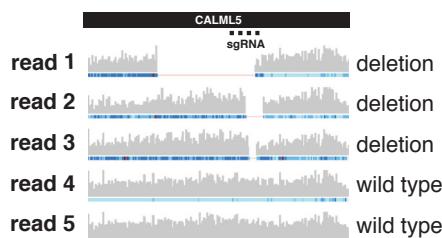
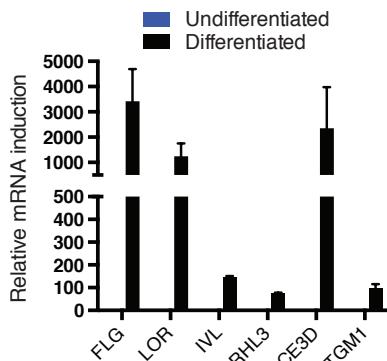
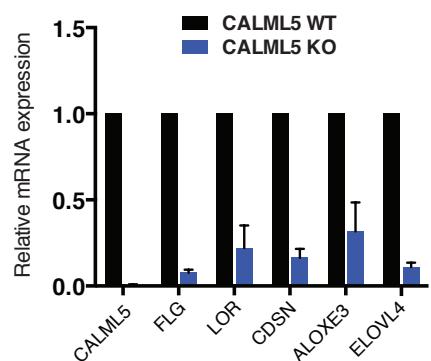
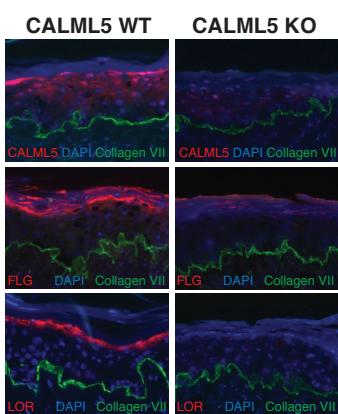
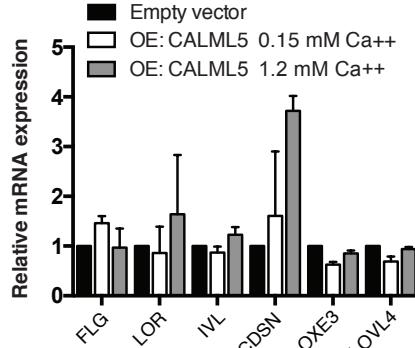
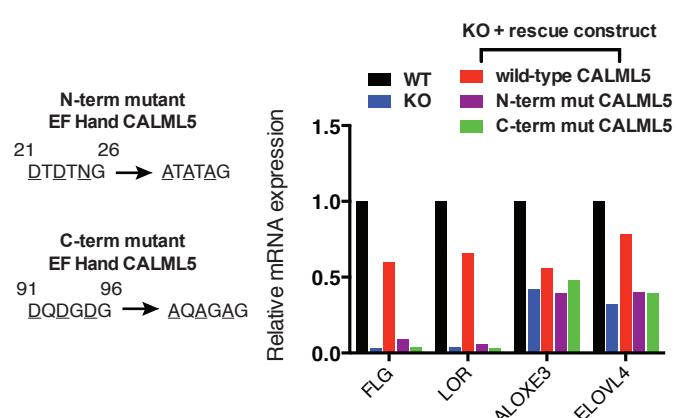
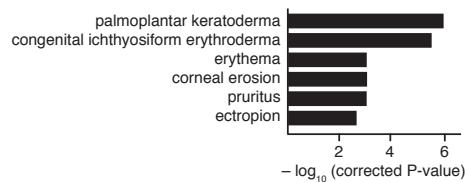


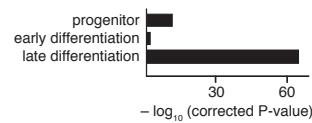
A Nile Red lipid staining**Intensity quantitation****B****Ki-67 immunofluorescence and TUNEL assays****C Ki-67 quantitation****D TUNEL quantitation****E****mRNA expression****F****mRNA expression: CRISPR pooled keratinocytes****G Sanger sequencing: CRISPR pooled keratinocytes****H****mRNA induction: Immortalized keratinocyte clone****I****mRNA expression: Xenografted epidermis****J Immunofluorescence: Xenografted epidermis****K****mRNA Expression: CALML5 overexpression****L****mRNA Expression: Rescue with CALML5 mutants**

A

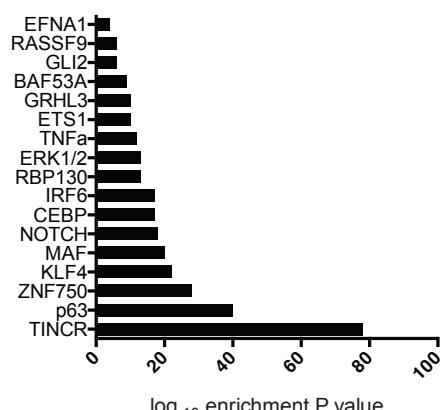
**CALML5 gene set:
Human Phenotype Ontology**

**B**

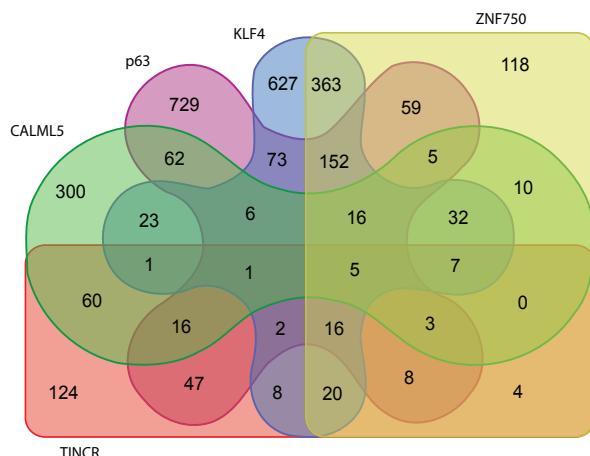
**CALML5 gene set:
Epidermal Differentiation Signature**

**C**

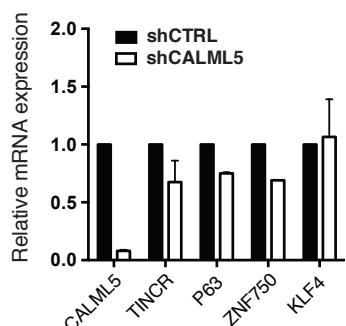
**CALML5 Gene Set Overlap Analysis
vs. Known Epidermal Regulators**

**D**

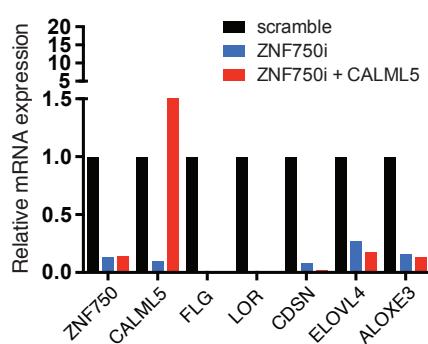
**Venn Diagram: CALML5 controlled genes
and Top Overlap Epidermal Regulators**

**E**

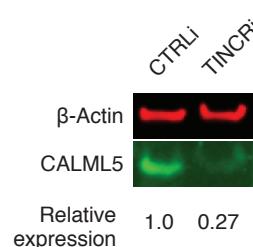
**mRNA Expression:
Epidermal Regulators**

**F**

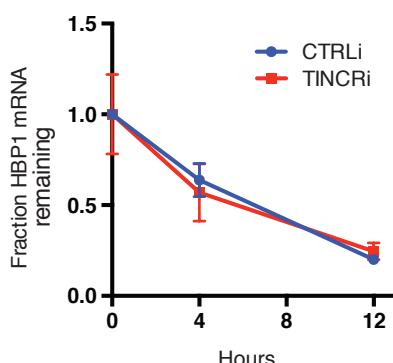
**mRNA Expression:
CALML5 rescue of ZNF750i**

**G**

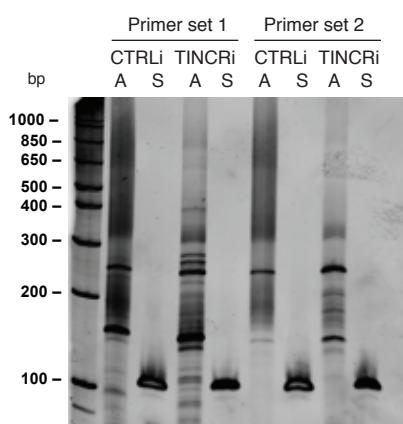
**Immunoblot:
TINCR-depleted tissue**

**H**

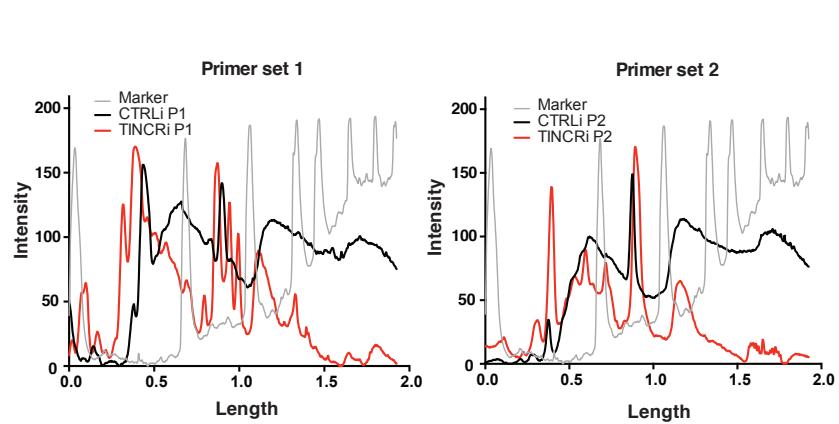
HBP1 mRNA stability assay

**I**

CALML5 polyA length assay

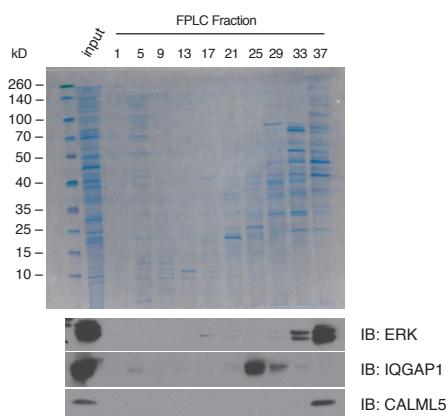
**J**

CALML5 polyA length quantitation

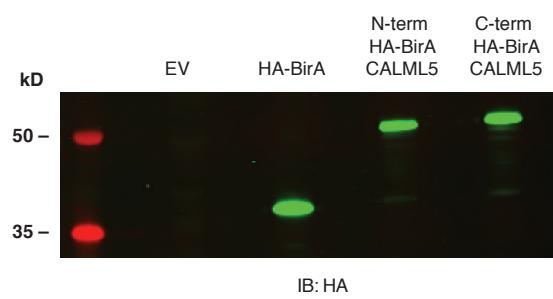


A

Coomassie stain: Size fractionation of lysates from differentiated keratinocytes

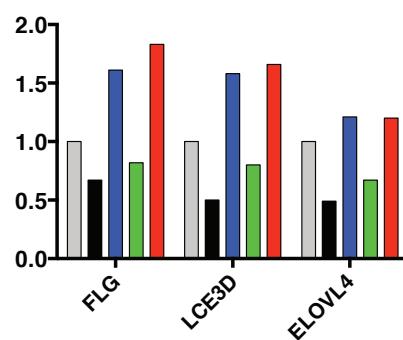
**B**

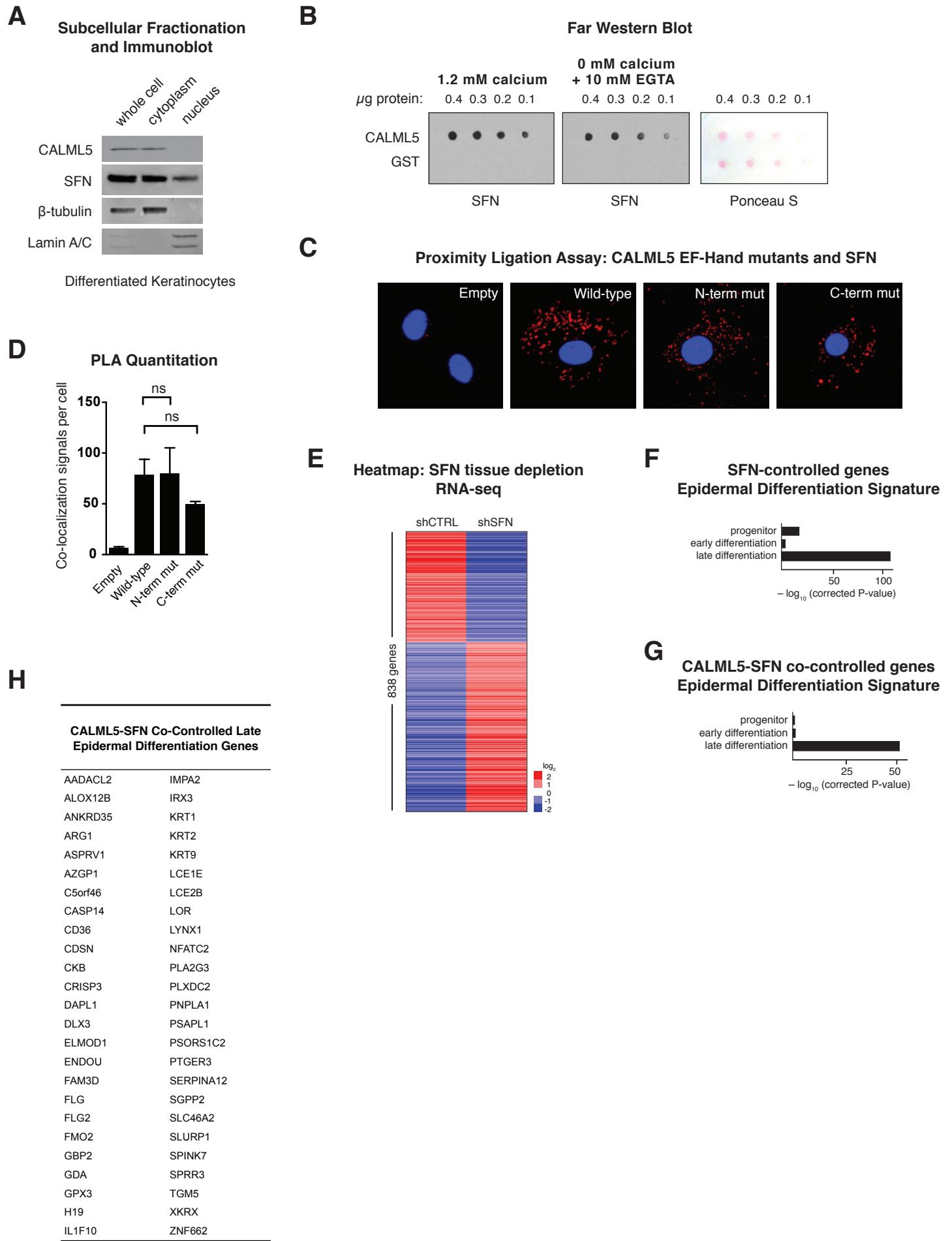
Immunoblot: BirA proteins for BioID assay

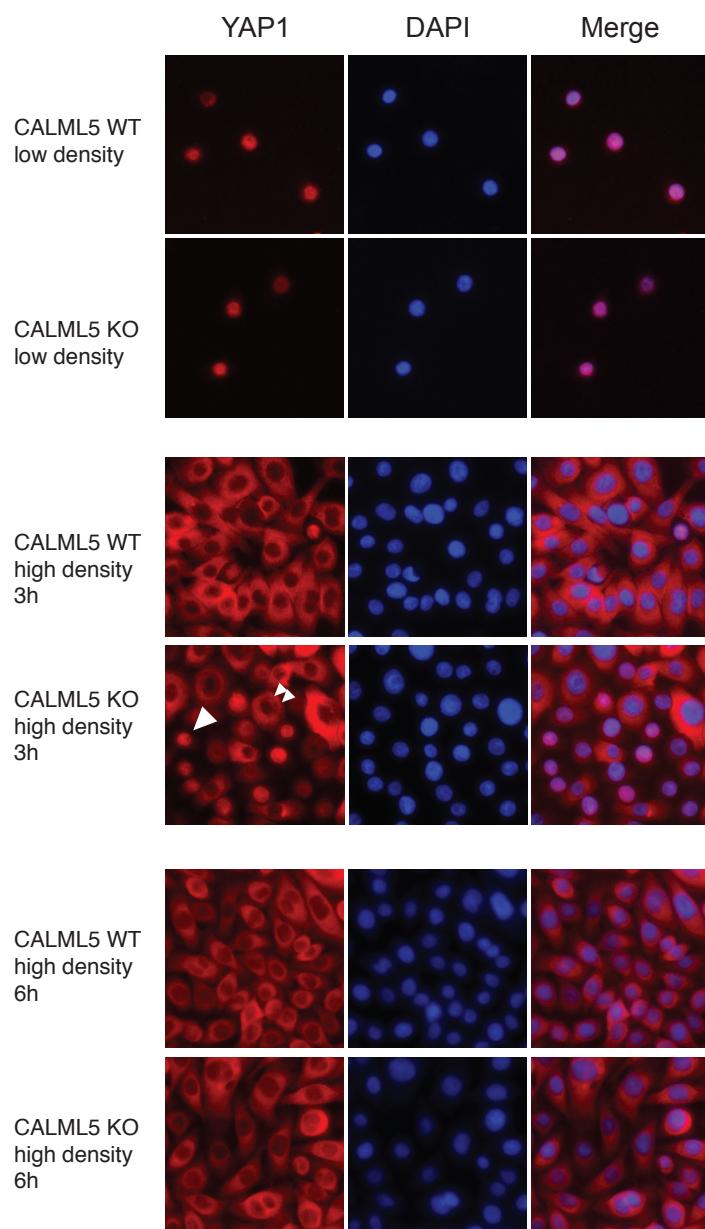
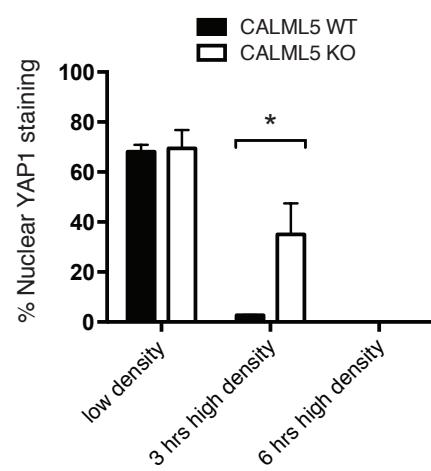
**C**

Rescue assay with BirA fusion protein

- scramble
- HA-BirA
- CALML5
- N-term HA-BirA CALML5
- C-term HA-BirA CALML5





A**Immunofluorescence of YAP1****B****Quantitation of YAP1 subcellular localization****C****SFN BiID/MS in differentiated keratinocytes**

Gene	Spectral Counts		
	CTRL	SFN	SFN shCALML5
CSNK1A1	0	56	40
PHLDB2	0	27	80
PKP3	0	14	21
ZFP36L1	0	14	28
FABP5	0	14	3
EXPH5	0	12	6
ISCU	0	12	13
BAIAP2	0	11	32
ALDH1A3	0	11	0

D**SFN BiID/IP**