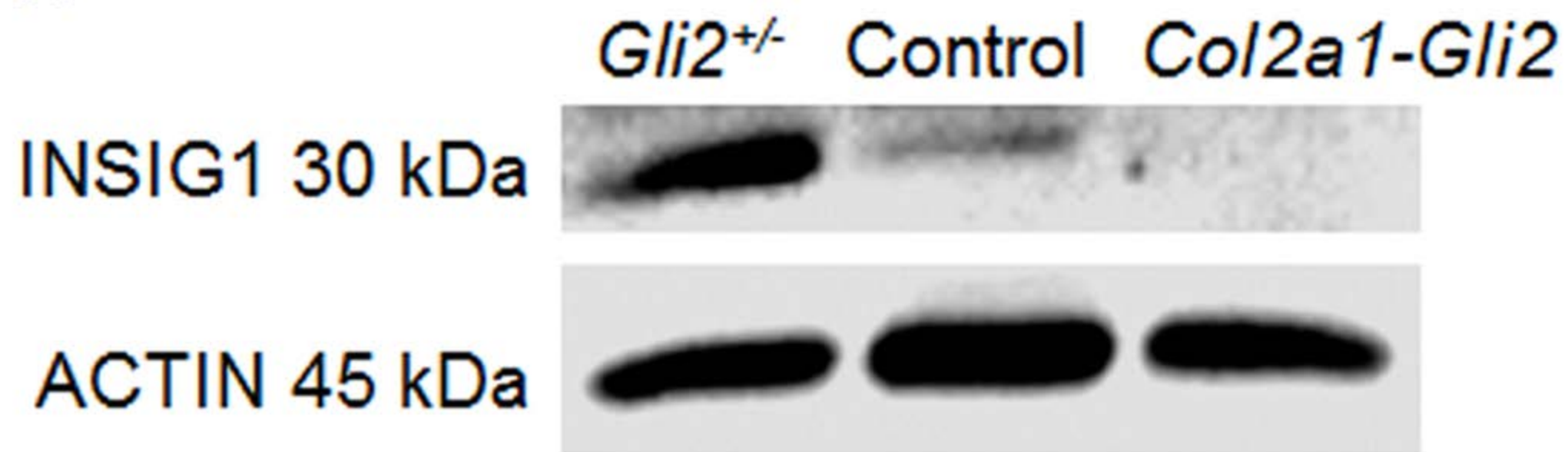
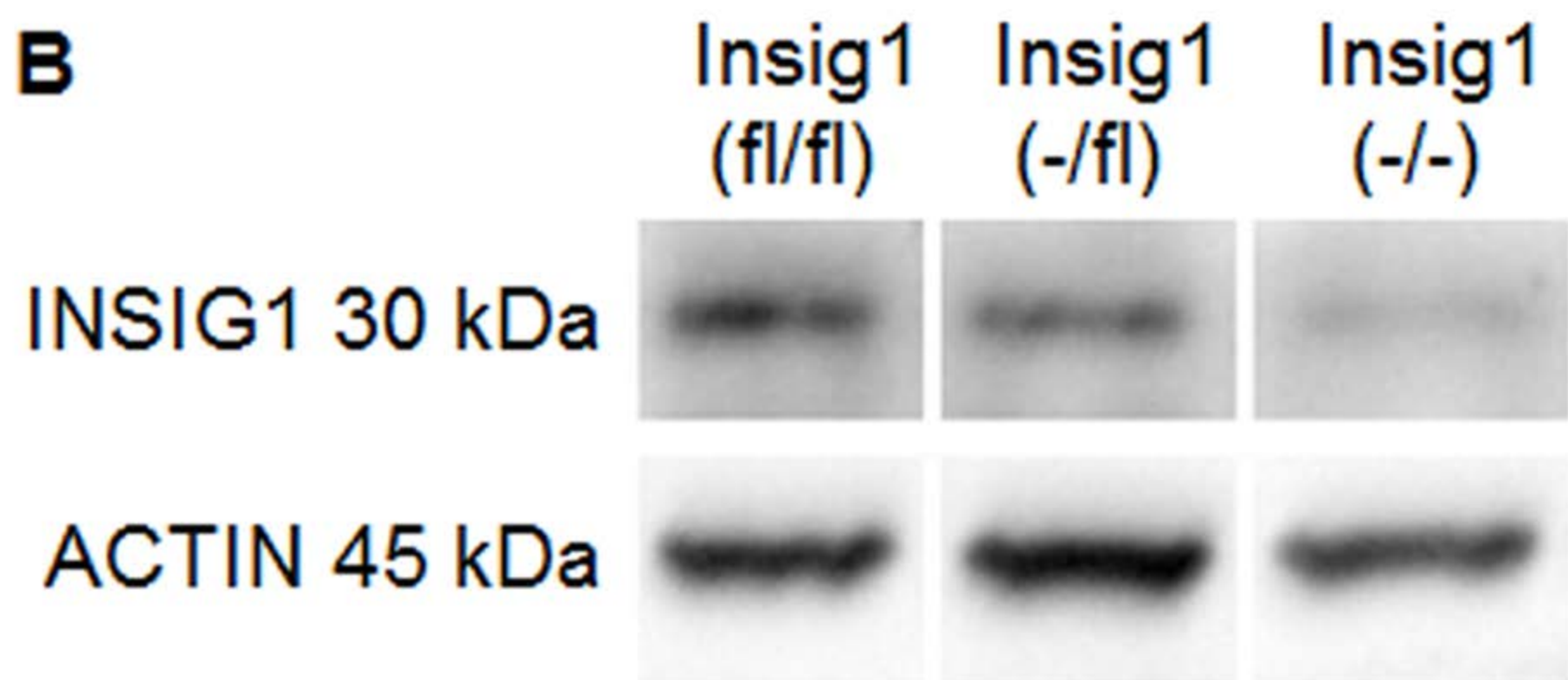
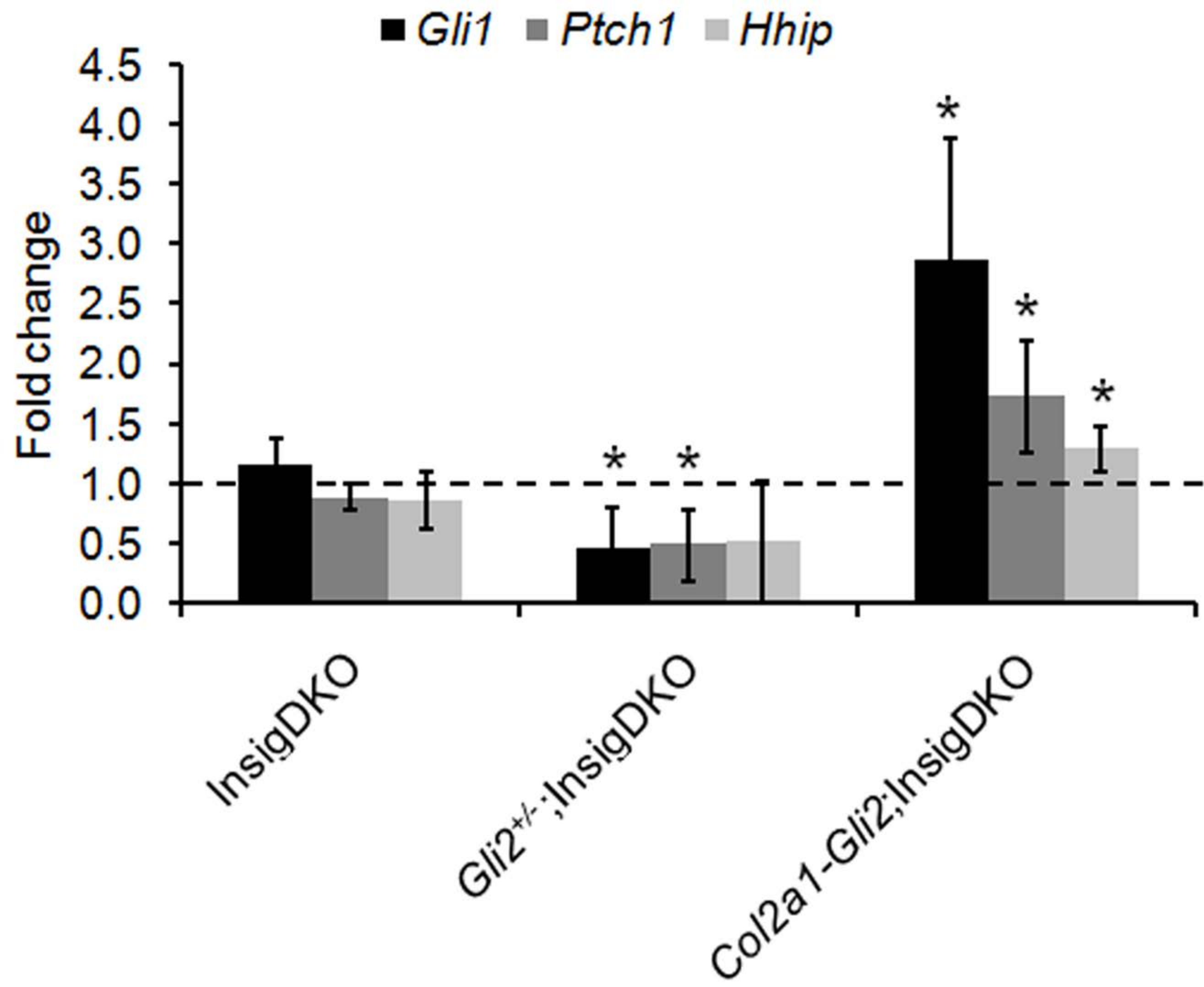
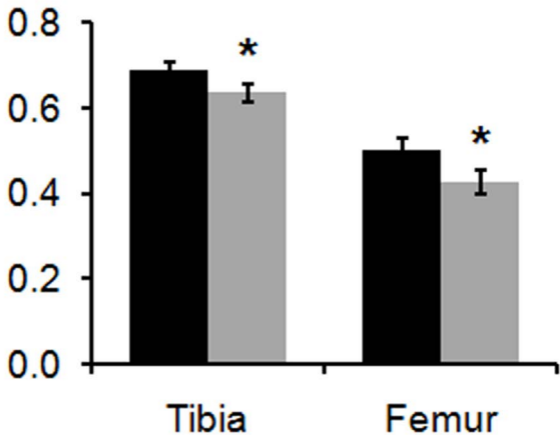


A**B**

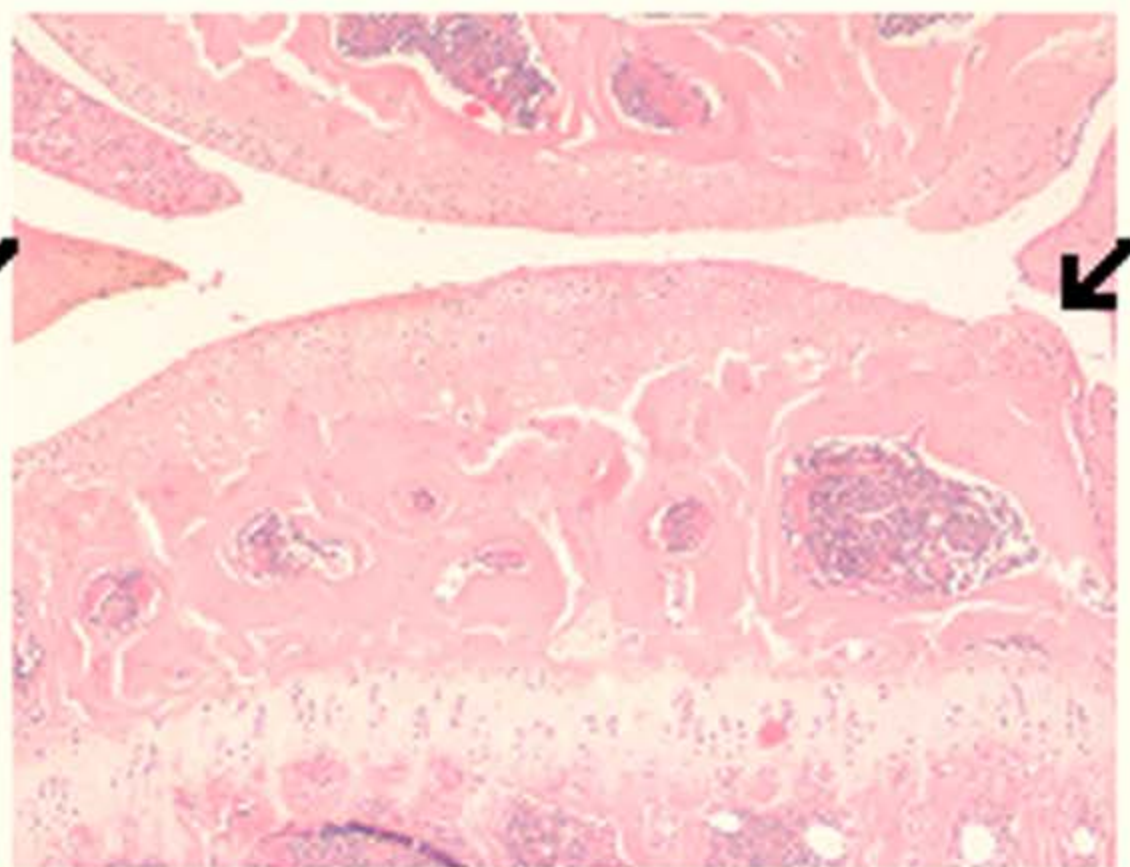
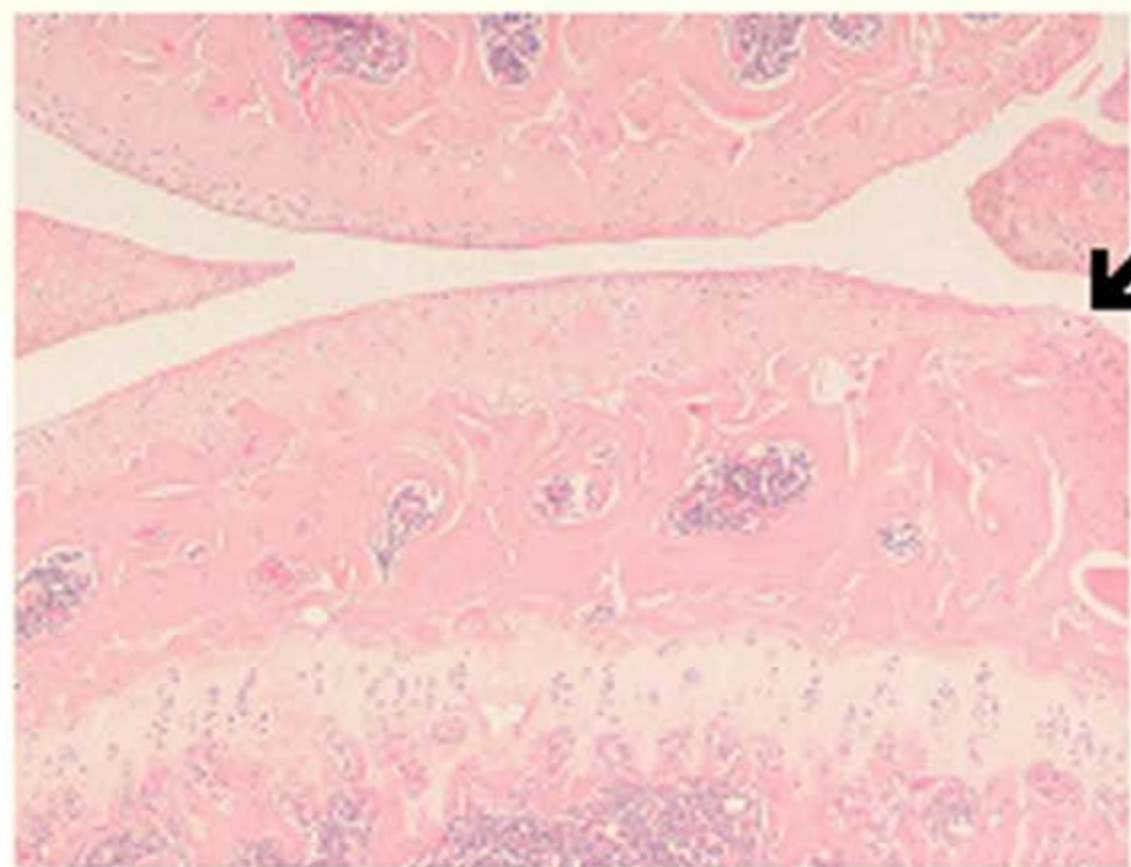
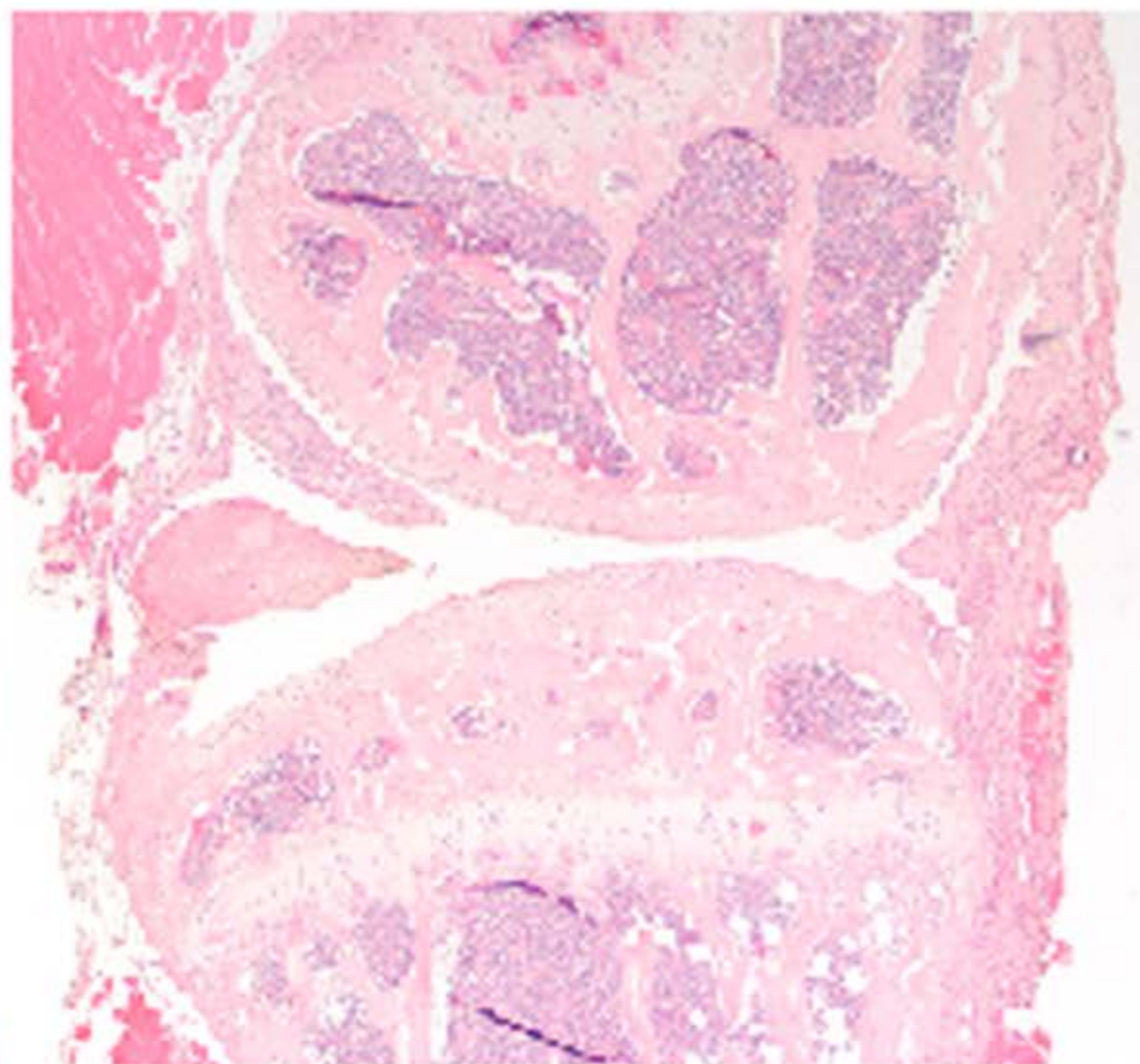
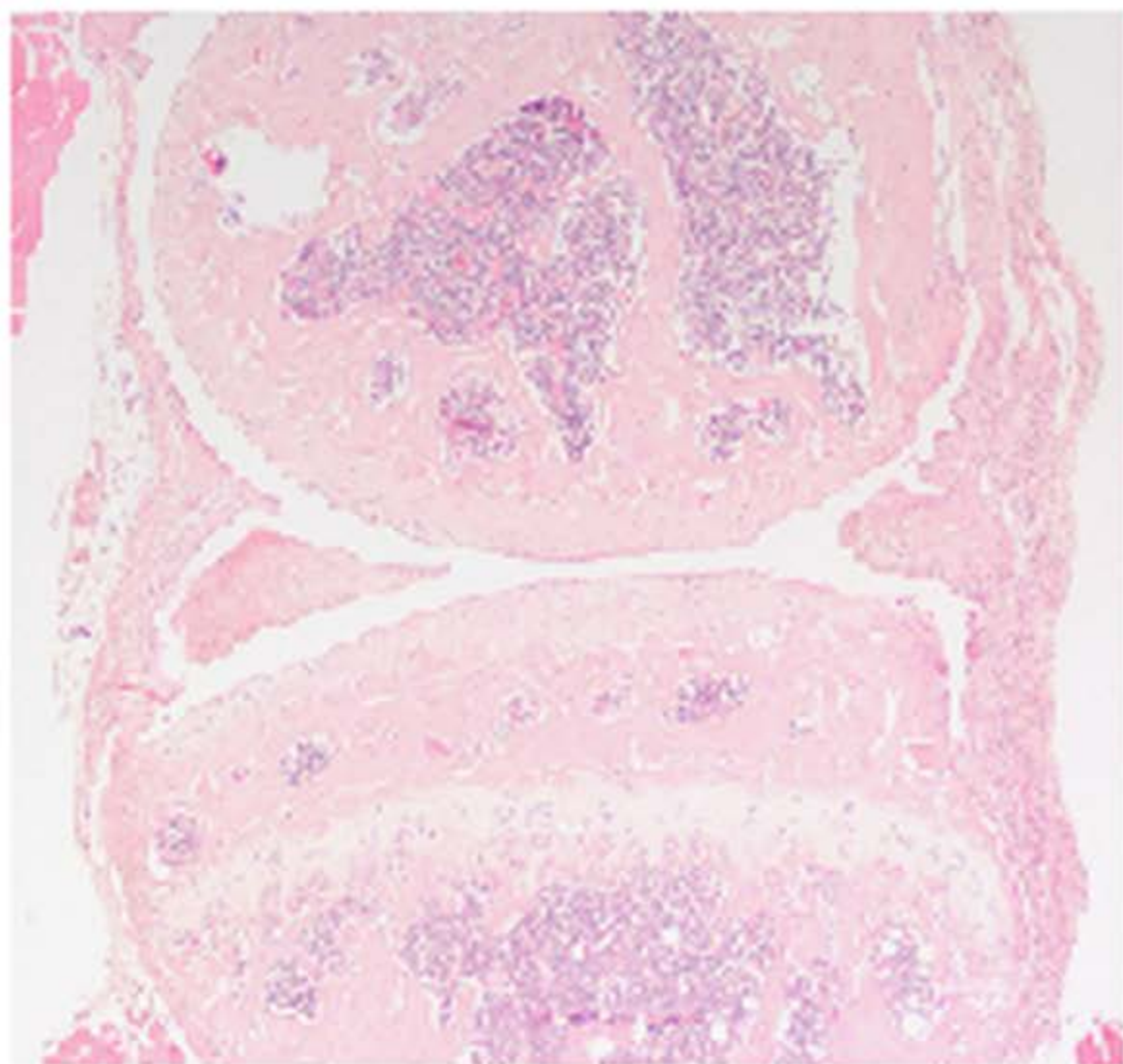


BV/TV

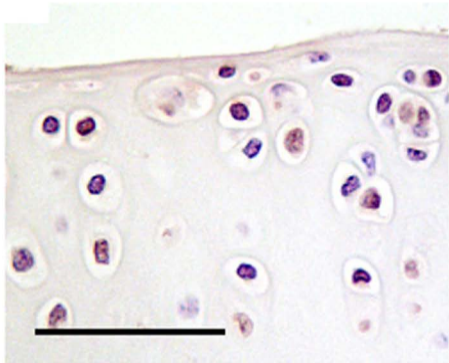


Control

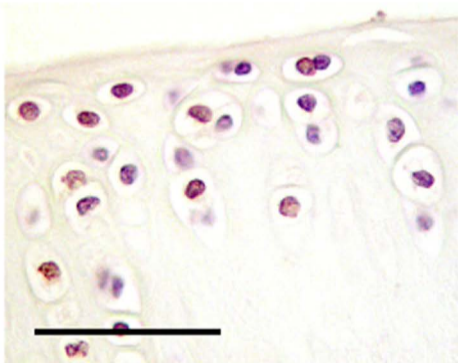
InsigDKO



Placebo



Statin

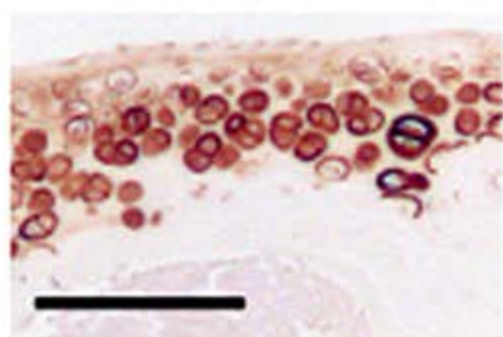
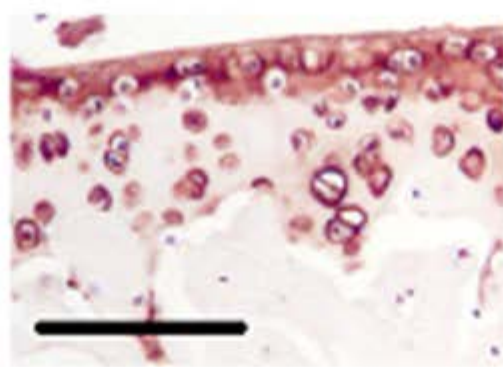
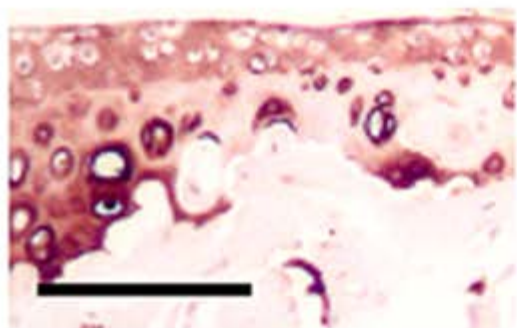


Col2a1-Gli2

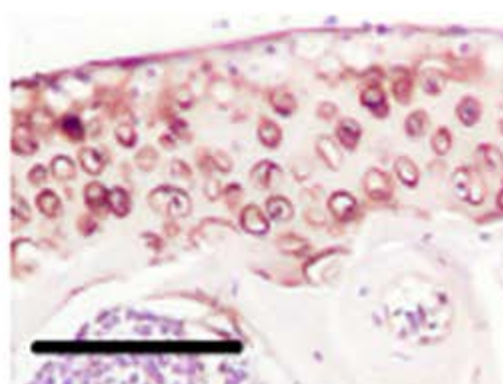
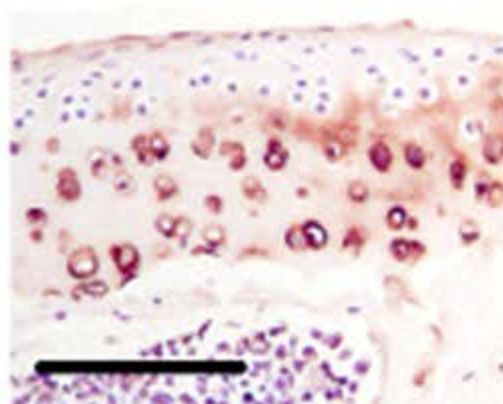
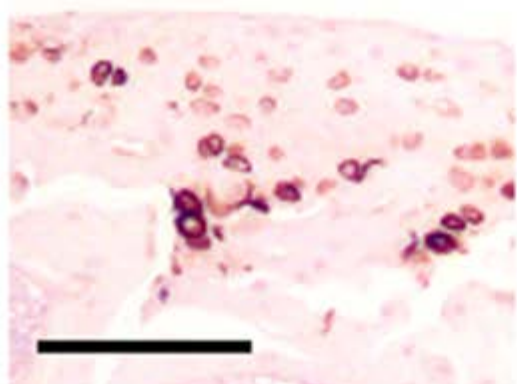
InsigDKO

Col2a1-Gli2;
InsigDKO

Placebo



Statin

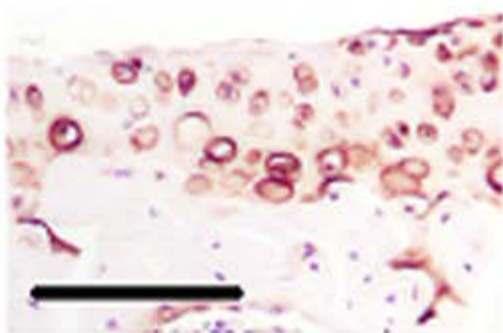
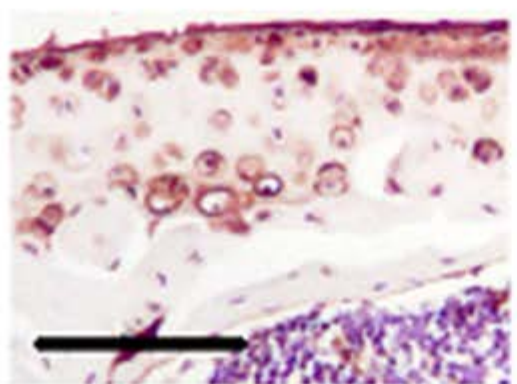


Surgery

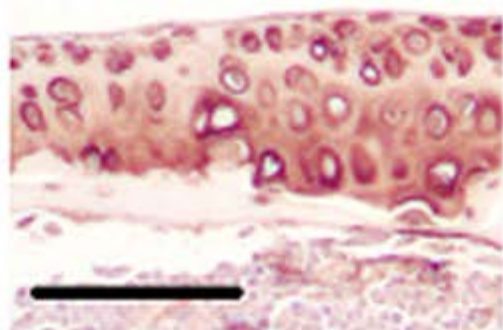
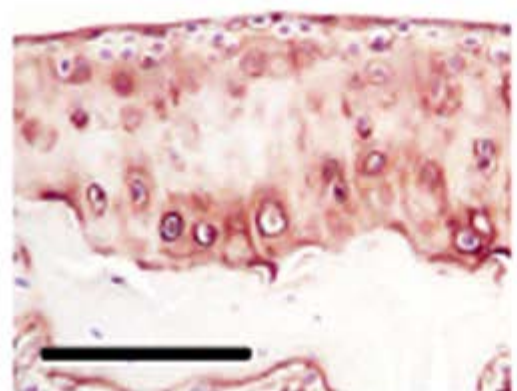
Control

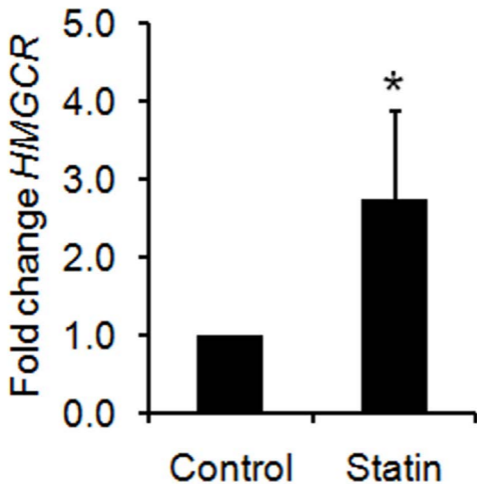
InsigDKO

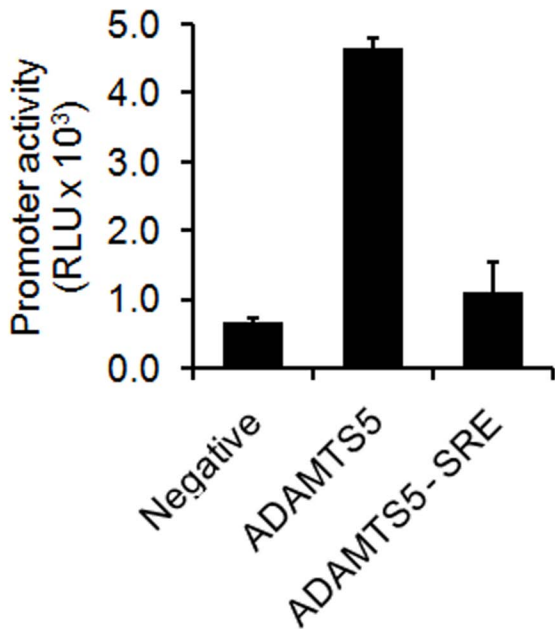
Placebo



Statin







Top Biological Functions		p-value
Diseases and Disorders	Inflammatory Response	1.03E-04 - 2.31E-02
Molecular and Cellular Functions	Lipid Metabolism	2.27E-11 - 2.53E-02
Physiological System Development & Function	Reproductive System	4.80E-05 - 1.65E-02
Top Canonical Pathways	Biosynthesis of Steroids	1.30E-09
Top Toxicity Lists	Cholesterol Biosynthesis	3.91E-13
Top Toxicity Functions		
Cardiotoxicity	Cardiac Hemorrhaging	5.06E-02 - 5.03E-01
Hepatotoxicity	Liver Hepatomegaly	1.37E-02 - 1.56E-01
Nephrotoxicity	Renal Nephritis	3.10E-02 - 1.44E-01

Table S1

A

ICRS Cartilage Scoring Scale	Control	InsigDKO
1) Surface	3.0 ± 0.0	2.3 ± 0.9
2) Matrix	3.0 ± 0.0	2.5 ± 1.0
3) Cell Distribution	2.5 ± 0.6	2.0 ± 0.8
4) Cell Population Viability	3.0 ± 0.0	2.8 ± 0.5
5) Subchondral Bone	2.8 ± 0.5	0.5 ± 0.6
6) Cartilage Mineralization	3.0 ± 0.0	1.3 ± 0.5
ICRS Summary Score	17.3	11.3
P-value (U-test)		P=0.020

B

ICRS Cartilage Scoring Scale	<i>Col2a1-Gli2</i>		InsigDKO		<i>Col2a1-Gli2</i> ; InsigDKO	
	Placebo	Statin	Placebo	Statin	Placebo	Statin
1) Surface	2.7 ± 0.7	3.0 ± 0.0	2.8 ± 0.5	3.0 ± 0.0	2.3 ± 0.7	3.0 ± 0.0
2) Matrix	2.7 ± 0.7	2.7 ± 0.7	2.8 ± 0.5	3.0 ± 0.0	2.0 ± 0.0	3.0 ± 0.0
3) Cell Distribution	2.0 ± 0.0	2.7 ± 0.7	2.3 ± 0.9	2.7 ± 0.7	2.0 ± 0.0	2.7 ± 0.7
4) Cell Population Viability	2.7 ± 0.7	3.0 ± 0.0	2.8 ± 0.5	3.0 ± 0.0	2.7 ± 0.7	3.0 ± 0.0
5) Subchondral Bone	2.7 ± 0.7	3.0 ± 0.0	1.5 ± 0.6	3.0 ± 0.0	2.0 ± 0.0	2.7 ± 0.7
6) Cartilage Mineralization	2.0 ± 1.1	3.0 ± 0.0	1.8 ± 0.5	3.0 ± 0.0	2.7 ± 0.7	3.0 ± 0.0
ICRS Summary Score	14.7	17.3	13.8	17.7	13.7	17.3
P-value (U-test)	P=0.043		P=0.026		P=0.046	

C

ICRS Cartilage Scoring Scale	Surgery			
	Control		InsigDKO	
	Placebo	Statin	Placebo	Statin
1) Surface	2.0 ± 0.0	2.7 ± 0.7	1.3 ± 0.7	2.7 ± 0.7
2) Matrix	2.7 ± 0.7	3.0 ± 0.0	2.0 ± 1.1	3.0 ± 0.0
3) Cell Distribution	1.7 ± 0.7	2.7 ± 0.7	1.3 ± 0.7	2.3 ± 0.7
4) Cell Population Viability	2.0 ± 0.0	2.7 ± 0.7	2.3 ± 0.7	2.7 ± 0.7
5) Subchondral Bone	1.7 ± 0.7	2.3 ± 0.7	1.7 ± 0.7	3.0 ± 0.0
6) Cartilage Mineralization	2.7 ± 0.7	3.0 ± 0.0	2.7 ± 0.7	3.0 ± 0.0
ICRS Summary Score	12.7	16.3	11.3	16.7
P-value (U-test)	P=0.046		P=0.046	

Table S2