

**Supplemental Table 1: Abcg2-Cre Mice with Rosa-LacZ reporter:**

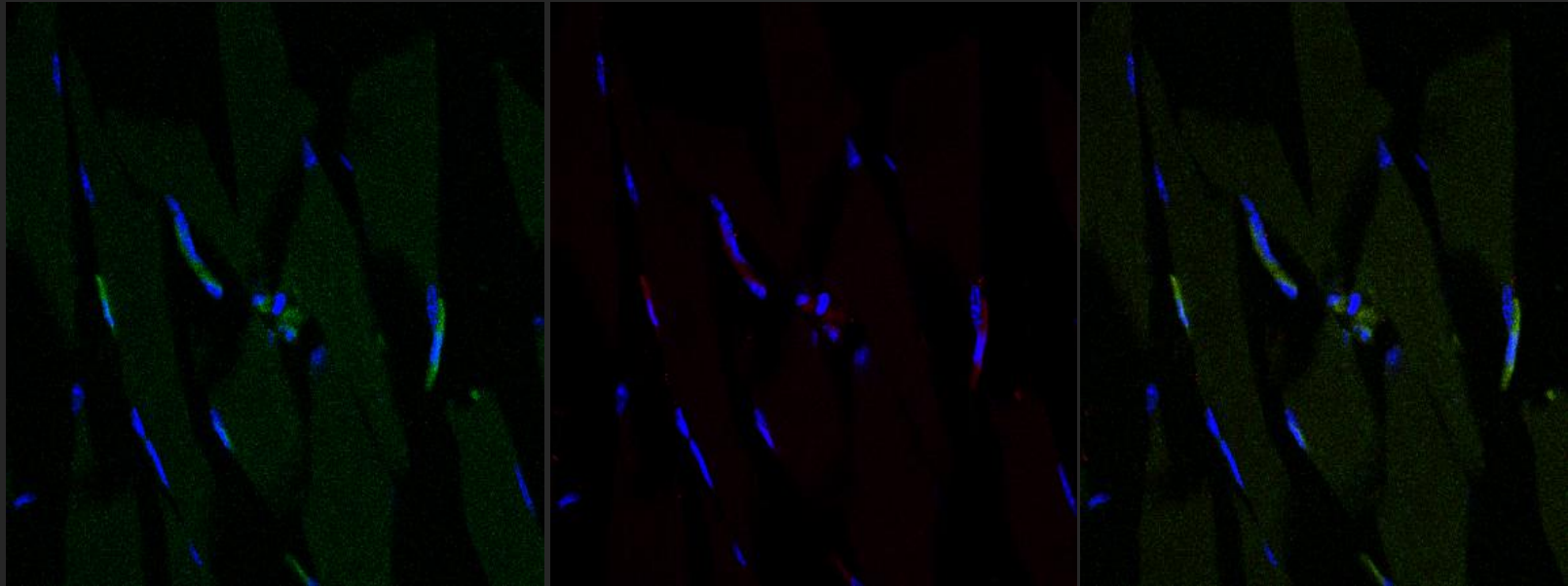
Animal ID	Genotype	Age at Tam (weeks)	Gender	Analysis after Tam-treatment (months)
1937	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>LacZ/+</sup>	8	M	1
4591	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/+</sup>	8	M	1
1670	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/+</sup>	8	F	2
1686	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/+</sup>	8	F	3.5
1669	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/+</sup>	8	M	4
2375	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/+</sup>	8	M	9
34440	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/+</sup>	8	F	9
2345	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/+</sup>	8	M	20
2347	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/+</sup>	8	M	20
5798	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/LacZ</sup>	3	F	21
5920	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/LacZ</sup>	8	F	15
5929	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/LacZ</sup>	8	M	15
5859	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/LacZ</sup>	8	M	15
5901	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/LacZ</sup>	8	M	15
5903	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/LacZ</sup>	8	M	15
2665	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/LacZ</sup>	8	M	1.5
2657	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>LacZ/LacZ</sup>	8	M	1.5
1641	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>LacZ/+</sup>	No Tam	M	No Tam
1633	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>LacZ/+</sup>	No Tam	M	No Tam
3435	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>LacZ/+</sup>	No Tam	M	No Tam

**Supplemental Table 2: Abcg2-Cre Mice with Rosa-EYFP reporter:**

Mouse ID	Genotype	Age at Tam (Weeks)	Gender	Analysis after Tam-treatment (months)
5961	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	8	M	1
5362	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	2	F	22
5843	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	8	M	0.5
5811	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	11	M	17
5817	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	11	M	17
1849	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	20	M	12
1851	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	20	M	12
1801	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	12	M	12
1803	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	12	M	12
1861	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	4	M	12
1863	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	4	M	12
1865	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	4	M	12
1867	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	4	M	12
8118	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	4	F	12
8120	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	4	F	12
8130	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	4	F	12
8136	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	4	F	12
5359	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	2	M	34
1956	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	12	F	4
3705	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>EYFP/EYFP</sup>	5	M	4
3707	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>EYFP/EYFP</sup>	5	M	4
3709	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>EYFP/EYFP</sup>	5	M	4
3731	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>EYFP/EYFP</sup>	6	M	1
3733	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>EYFP/EYFP</sup>	6	M	1
3735	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>EYFP/EYFP</sup>	6	M	1
3737	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>EYFP/EYFP</sup>	6	M	1
2843	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>EYFP/EYFP</sup>	6	M	1
2845	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>EYFP/EYFP</sup>	6	M	1
8139	Abcg2 <sup>Cre/+</sup> , Rosa26 <sup>EYFP/+</sup>	No Tam	M	No Tam
3961	Abcg2 <sup>Cre/Cre</sup> , Rosa26 <sup>EYFP/EYFP</sup>	No Tam	M	No Tam

Suppl. Fig 1A: Co-staining of Abcg2 and CreERT2 in skeletal muscle extralaminar cells

Skeletal Muscle 3777  
Abcg2<sup>Cre/Cre</sup>



Abcg2+DAPI

Cre+DAPI

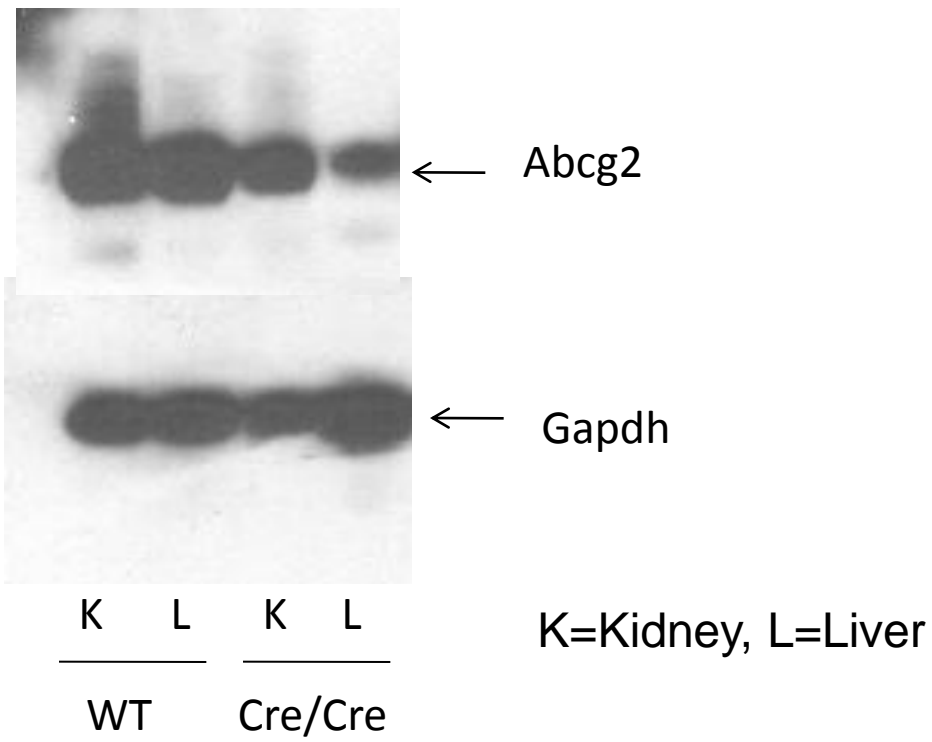
Abcg2+Cre+DAPI

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Skeletal muscle sections were stained with antibodies to Abcg2 and Cre and analyzed by confocal immunofluorescent microscopy. This analysis shows that extralaminar cells co-express both proteins in a homozygous Abcg2<sup>CreERT2/CreERT2</sup> mouse

# Suppl. Fig 1B: Western blot analysis of Abcg2 protein levels in the liver and kidney of a wildtype and Abcg2<sup>Cre/Cre</sup> homozygous mouse

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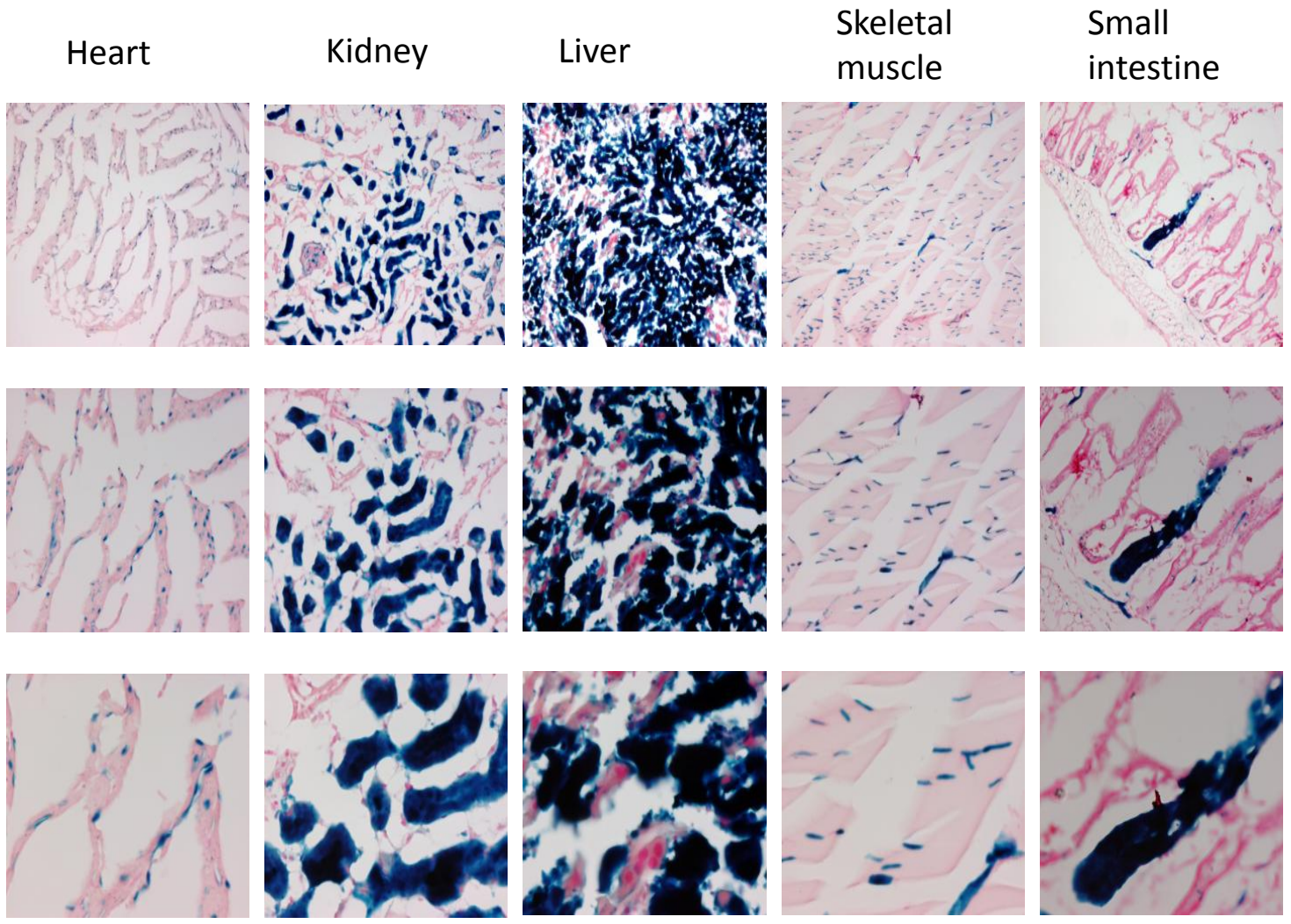
Kidney and liver from wild-type and *Abcg2*<sup>CreERT2/CreERT2</sup> homozygous mice were harvested. Lysates were prepared from tissues using M-PER mammalian protein extraction reagent (68501 Pierce, USA) together with Complete Mini EDTA-free Protein Inhibitor Cocktail (04693159001 Roche, USA). Tissue homogenates (10 ug protein per lane) were electrophoretically separated on 4% to 12% Bis-Tris NuPAGE gels (Invitrogen, USA), transferred to polyvinylidene fluoride membranes (Invitrogen, USA), and detected using a rat-monoclonal antibody to *Abcg2* (BXP53, MC-981 Kamiya Biomedical Company, USA) at a dilution of 1:5,000. Antibodies to GAPDH (1:50,000; MAB374 Millipore, USA) were used as control for protein loading. Protein bands were visualized by ECL Plus Western Blotting Detection System (RPN2132, GE Healthcare, USA) using the protocol supplied by the manufacturer.

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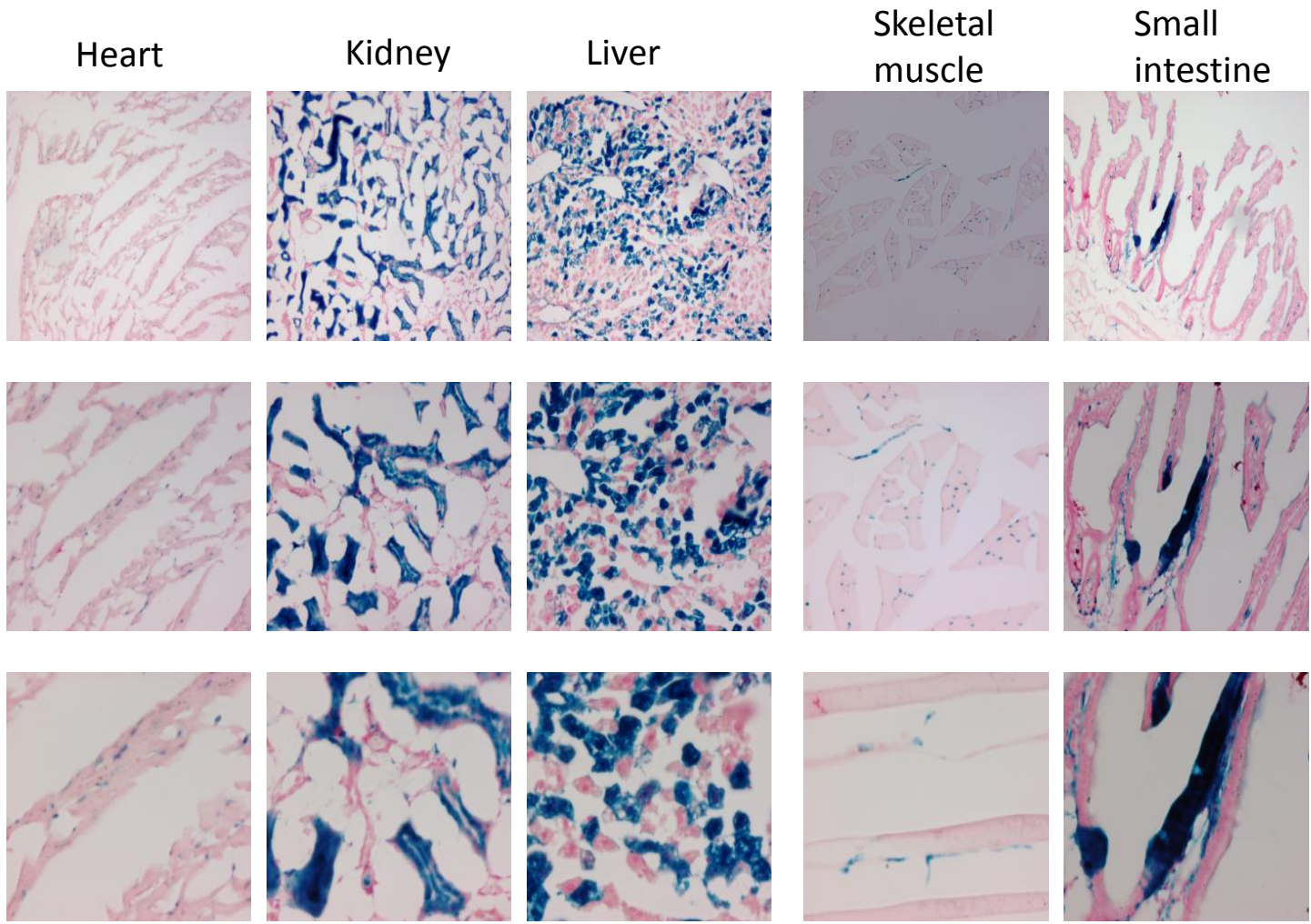
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# Suppl. Fig 3: 5920 Abcg2<sup>Cre/Cre</sup> Rosa26<sup>LacZ/LacZ</sup> -15 mo post-Tam

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Heart

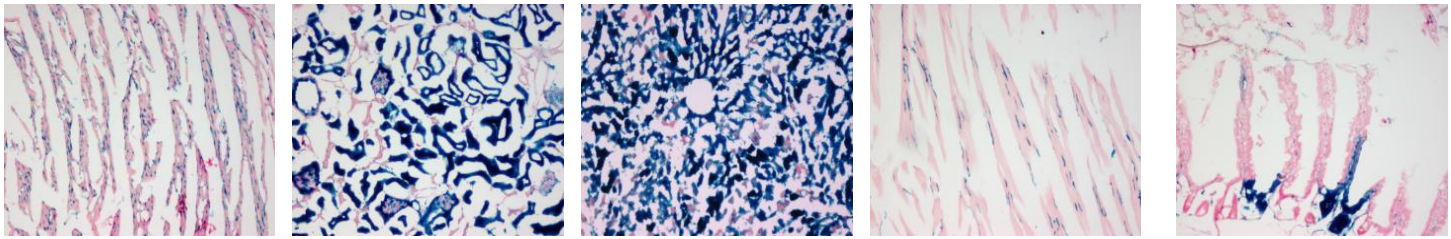
Kidney

Liver

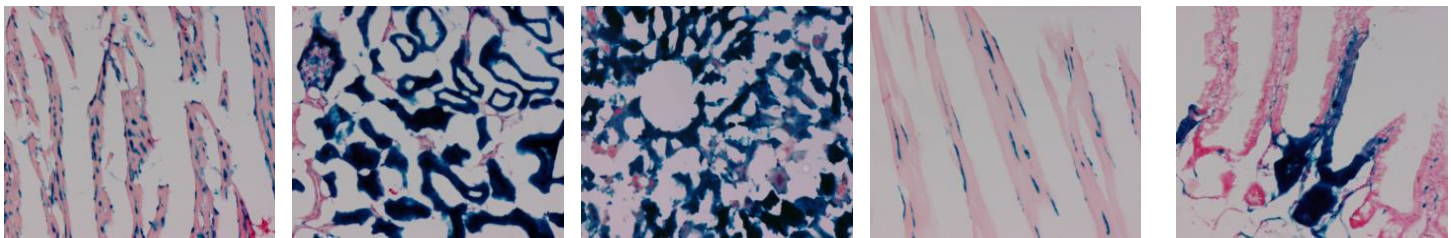
Skeletal muscle

Small intestine

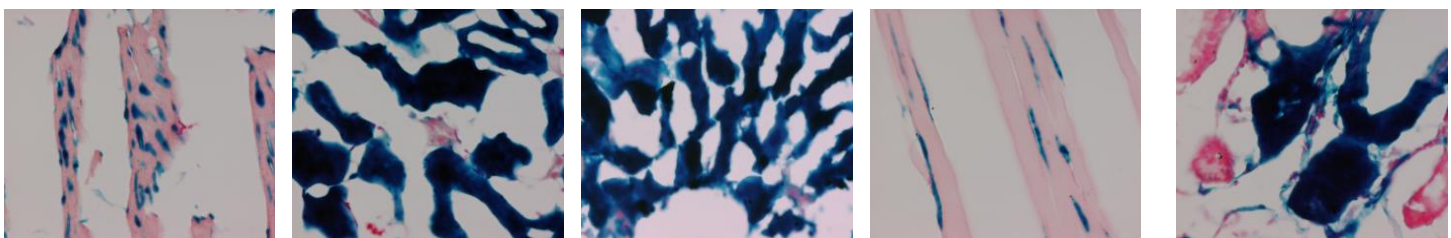
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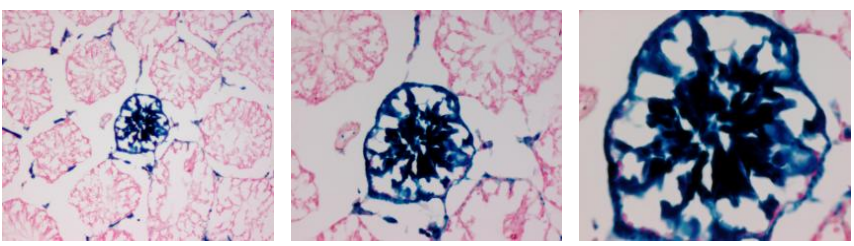
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Testis



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# Suppl. Fig 5: 5859 *Abcg2*<sup>Cre/Cre</sup> *Rosa26*<sup>LacZ/LacZ</sup> – 15 mo post-Tam

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Heart

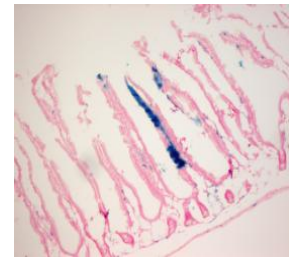
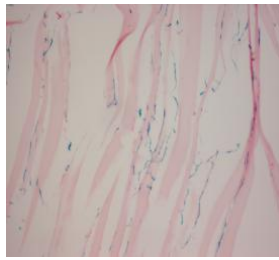
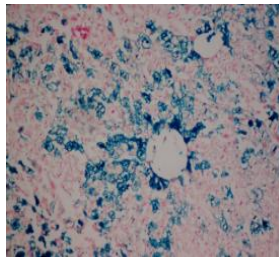
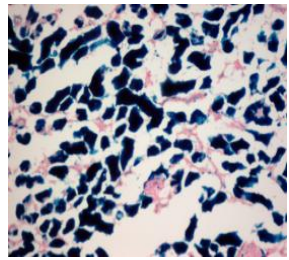
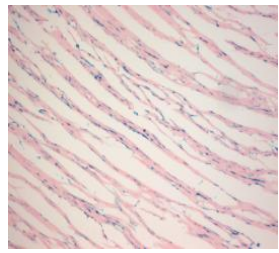
Kidney

Liver

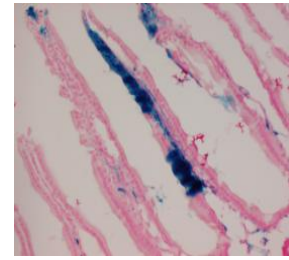
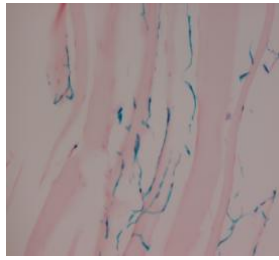
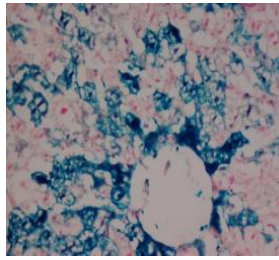
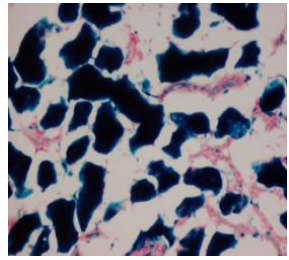
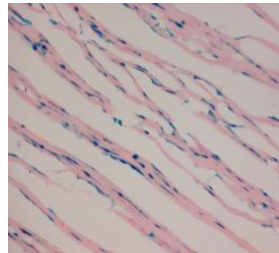
Skeletal muscle

Small intestine

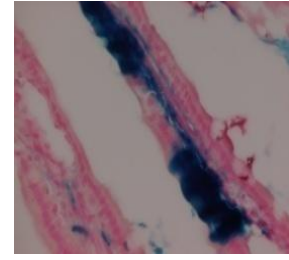
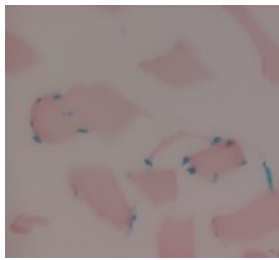
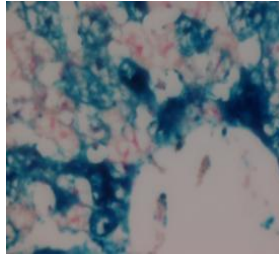
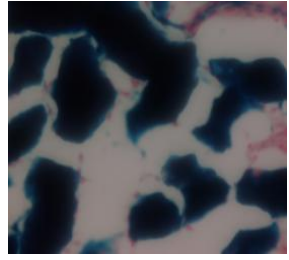
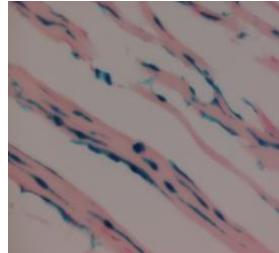
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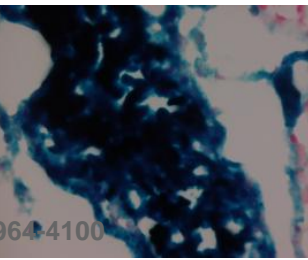
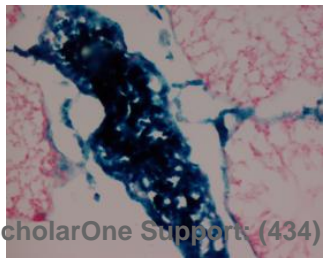
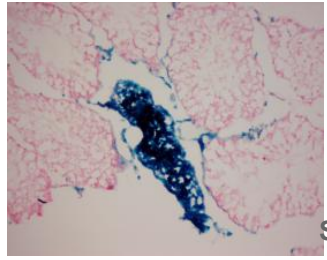
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Testis



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Heart

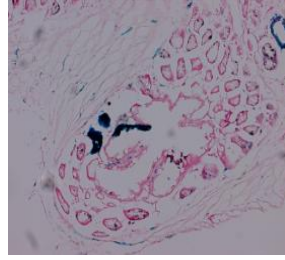
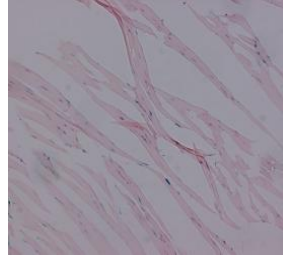
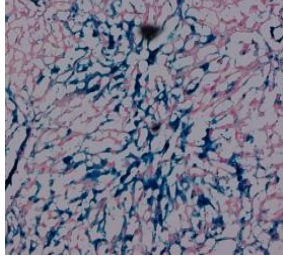
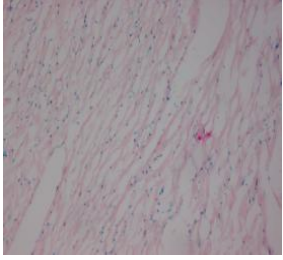
Kidney

Liver

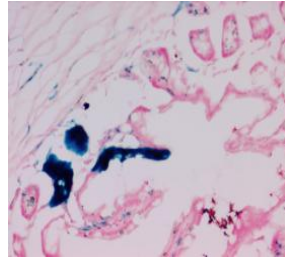
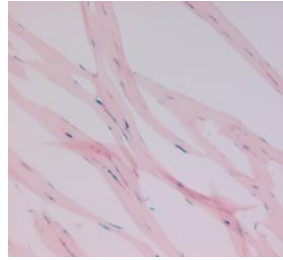
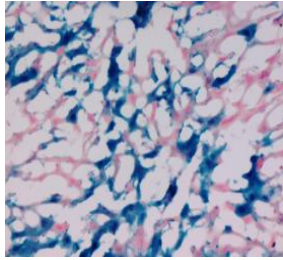
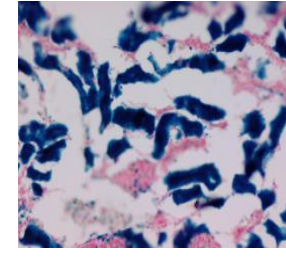
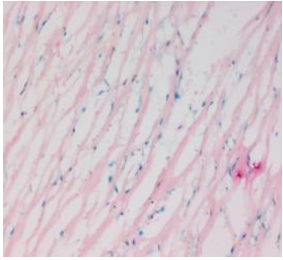
Skeletal muscle

Small intestine

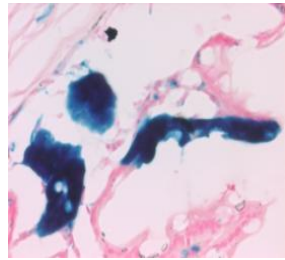
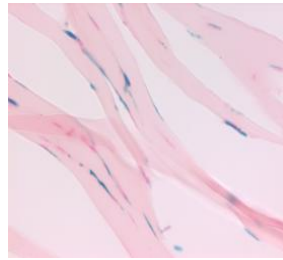
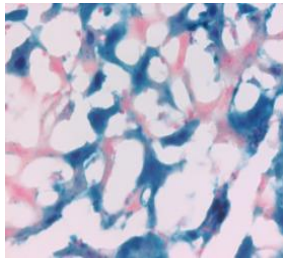
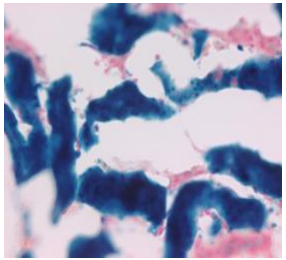
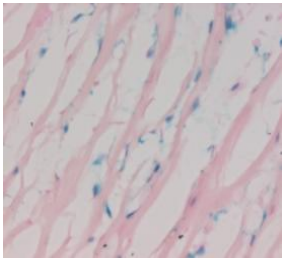
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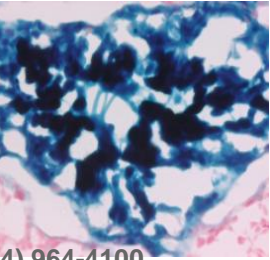
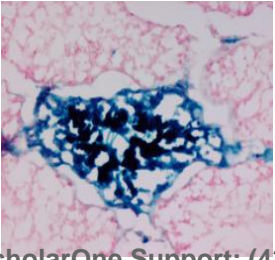
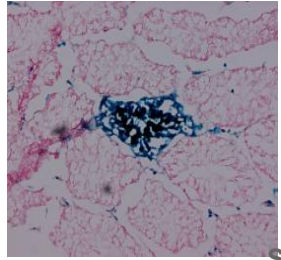
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Testis



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# Suppl. Fig 7: 5903 Abcg2<sup>Cre/Cre</sup> Rosa26<sup>LacZ/LacZ</sup> – 15 mo post-Tam

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Heart

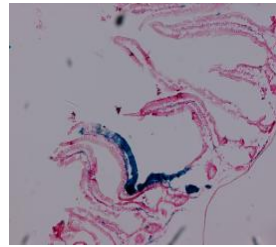
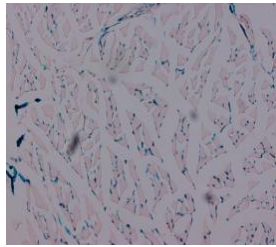
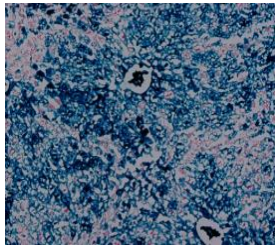
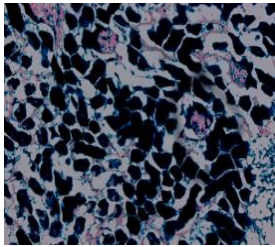
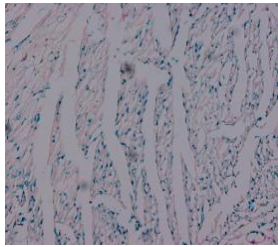
Kidney

Liver

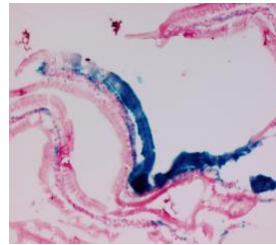
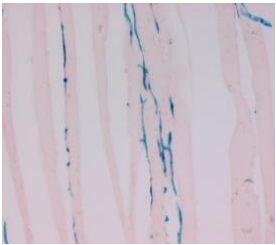
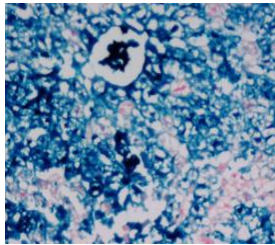
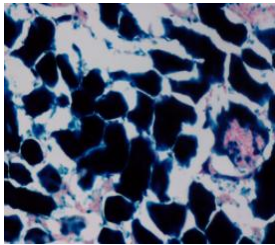
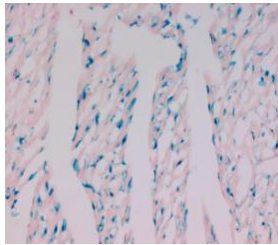
Skeletal muscle

Small intestine

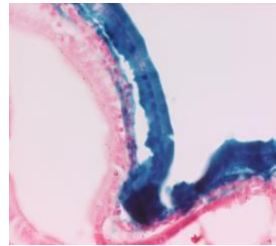
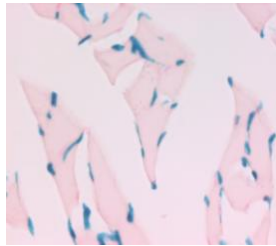
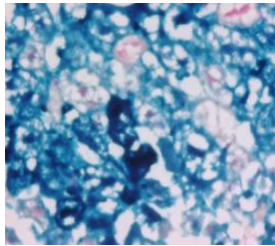
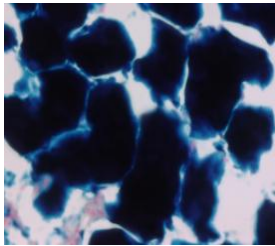
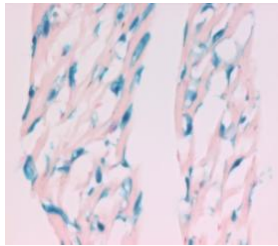
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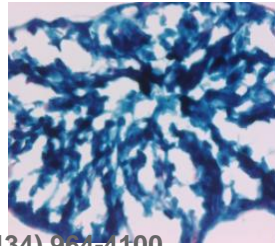
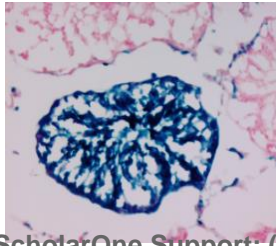
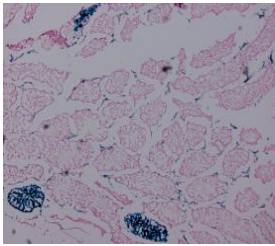
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Testis



4X

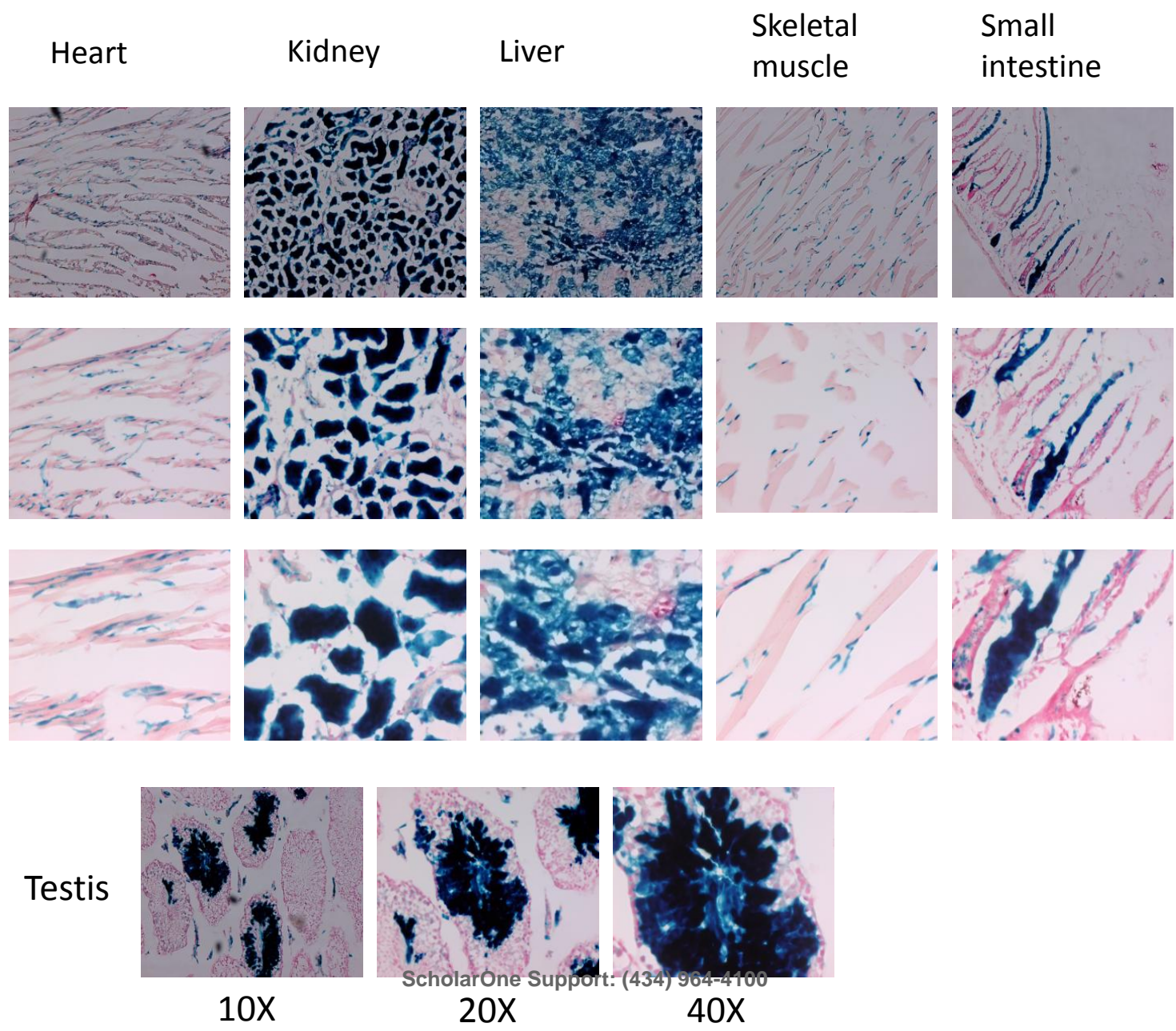
20X

40X



Suppl. Fig 8: 2657  $Abcg2^{Cre/Cre}$  <sup>Stem Cells</sup>  $Rosa26^{LacZ/LacZ}$  -1.5 mo post-Tam

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# Suppl. Fig 9: 2665 $Abcg2^{Cre/Cre}$ <sup>Stem Cells</sup> $Rosa26^{LacZ/LacZ}$ -1.5 mo post-Tam

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Heart

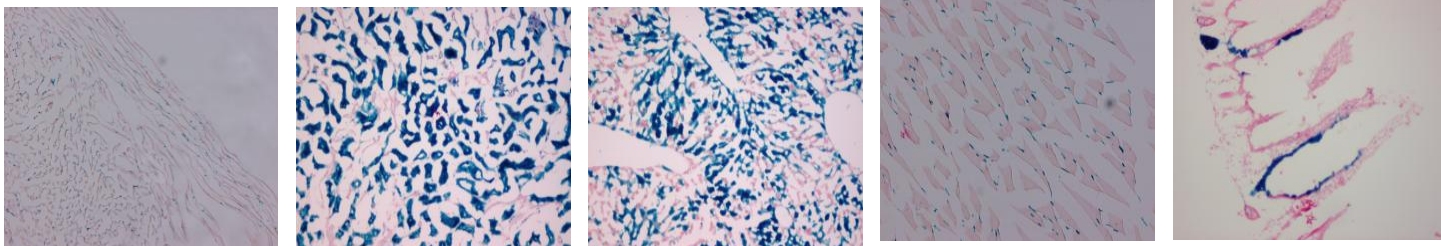
Kidney

Liver

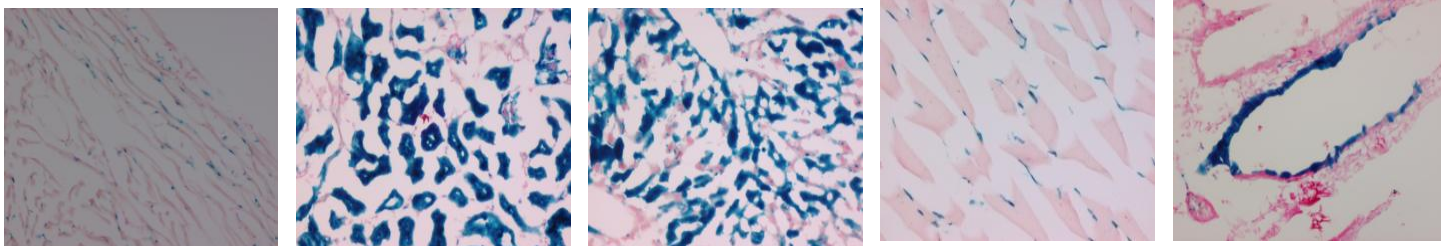
Skeletal muscle

Small intestine

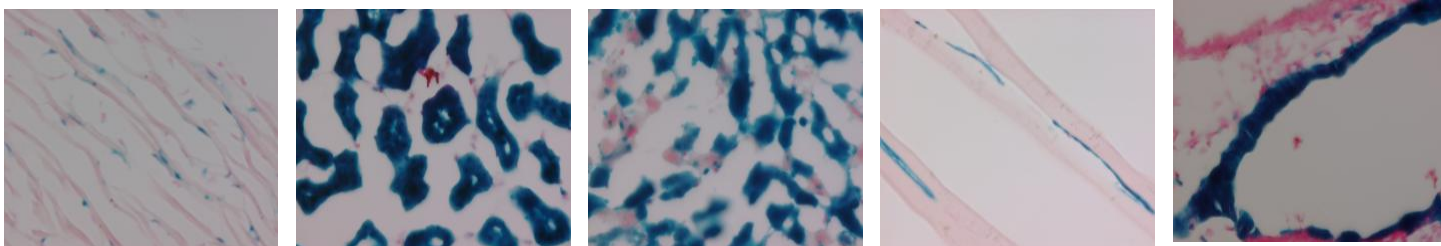
10X



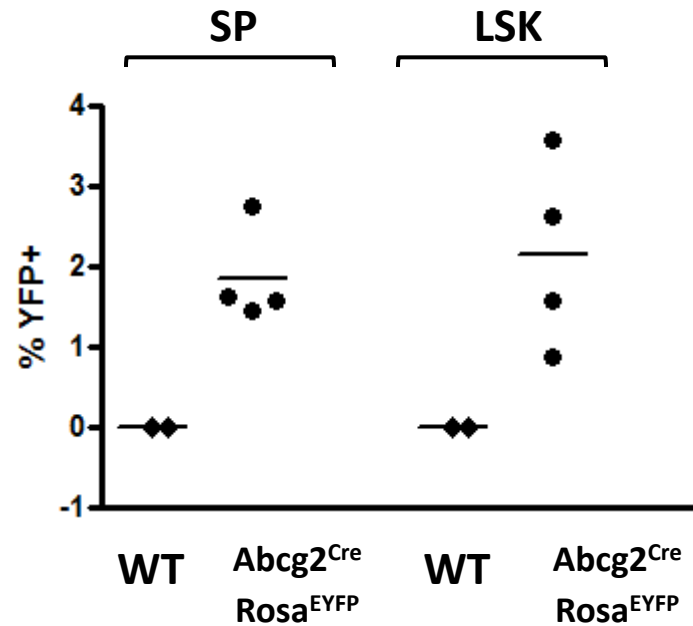
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3 Suppl. Fig 10: Marking frequencies in SP and LSK populations  
4 of Tam treated mice.  
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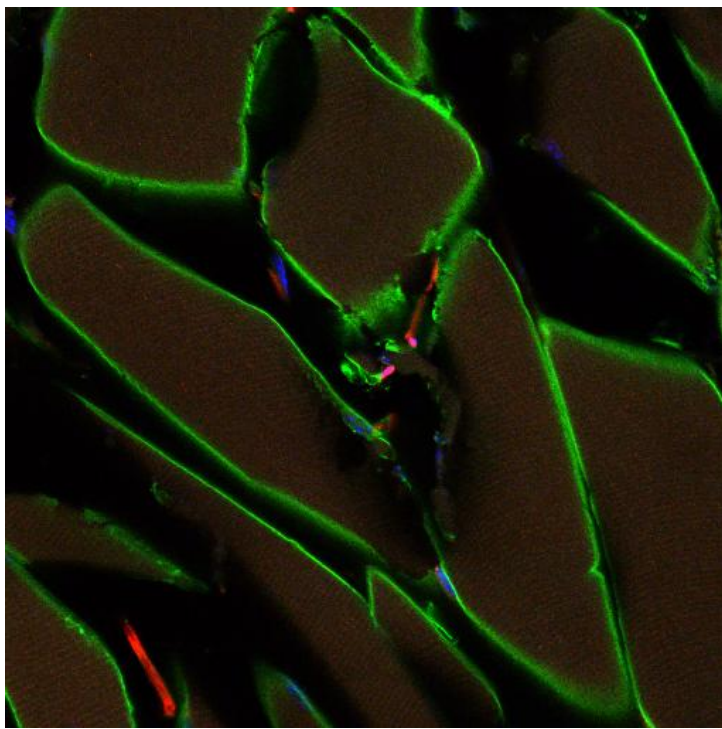


# Suppl. Fig 11: YFP is not detectable when an anti-YFP antibody is not used

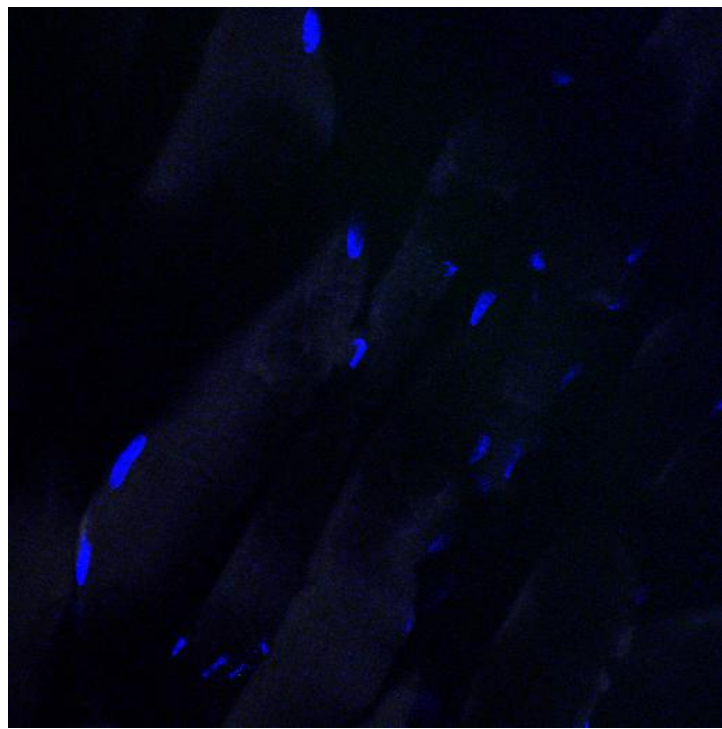
5961 Abcg2Cre/+, 1 month after Tam, Skeletal Muscle

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Laminin+GFP+DAPI



No Antibody+No Antibody+DAPI

Taken at identical microscope setting

Sections were stained using only DAPI and no other reagents or antibodies were used. Imaging was done using a 488 nm excitation laser as used figure 6C of the manuscript. This experiment demonstrates that there is no significant overlap from the Alexa488 (PECAM) and original YFP signals.