

Materials List for:

# Protocols for Analyzing the Role of Paneth Cells in Regenerating the Murine Intestine using Conditional Cre-lox Mouse Models

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## Materials

Name	Company	Catalog Number	Comments
Acetate buffer	*	*	To make 100 ml: 4.8 ml 0.2 M Acetic acid, 45.2 ml 0.2 M Sodium acetate & 50 ml distilled water
Acetic acid	Fisher Scientific	C/0400/PB17	
Acetic anhydride	Sigma	A6404	
Acetic anhydride solution	*	*	2 M Acetic anhydride in 0.1 M triethanolamine hydrochloride
Alcian Blue	Sigma	A5268	
Alcian Blue pH 2.5	*	*	To make 500 ml: 15 ml acetic acid, 5 g Alcian Blue & 485 ml distilled water
anti-digoxigenin alkaline phosphatase conjugated antibody	Abcam	ab119345	
B(beta)-Naphthoflavone	Sigma	N3633	BNF, inject without allowing the solution to cool too much as compound will drop out of solution. Solution can be re-used – store at -20 °C between uses, do not reheat more than twice.
Bloxall	Vector Labs	SP-6000	
BM purple	Roche	11442074001	
BSA	Sigma	A4503	Bovine serum albumin
Chloroform	Fisher Scientific	C/4920/17	
Citrate Buffer/Antigen Unmasking Solution	Vector Labs	H-3300	
Corn oil	Sigma	C8627	
Demucifying solution	*	*	For 500 ml: 50 ml glycerol, 50 ml Tris 0.1M pH8.8, 100 ml EtOH, 300 ml saline (0.9% NaCl in water), DTT 1.7 g. Demucifying solution can be made in advance and stored, but DTT should be added just before incubation (340 mg/100 ml).
DEPC treated water	Life Technologies	750023	
DTT	Sigma	101509944	
EDTA	Sigma	O3690	0.5M
Ethanol	Fisher Scientific	E/0650DF/17	
Filter paper	Whatman	3000917	
Formaldehyde	Sigma	F8775	

Formalin	Sigma	SLBL11382V	Neutral buffered formalin
Formamide	Sigma	F5786	
Glutaraldehyde	Sigma	G6257	
H <sub>2</sub> O <sub>2</sub>	Sigma	216763	
Haematoxylin	Raymond A Lamb	12698616	
HBSS	Gibco	14175-053	HBSS (-MgCl <sub>2</sub> +; -CaCl <sub>2</sub> )
Hybridisation buffer	*	*	5× SSC, 50% formamide, 5% SDS, 1 mg/ml heparin, 1 mg/ml calf liver tRNA
Hydroquinone	Sigma	H9003	
ImmPACT DAB Peroxidase	Vector Labs	SK-4105	
Immpress HRP Anti-Mouse IgG Kit	Vector Labs	MP-7402	
Immpress HRP Anti-Rabbit IgG Kit	Vector Labs	MP-7401	
Intestinal tissue powder	*	*	The small intestines of 5 adult mice were combined and homogenised in the minimum volume of ice cold PBS. 4 volumes of ice cold acetone were added to the homogenised intestine, which was mixed thoroughly and incubated on ice for 30 min. This was centrifuged and the pellet was washed using ice cold acetone. This was further centrifuged and the resulting pellet spread onto filter paper and allowed to dry. Once thoroughly dry the material was ground to a fine powder using a pestle and mortar.
K-ferricyanide	Sigma	P-3667	
K-ferrocyanide	Sigma	P3289	
Levamisole	Sigma	L0380000	
Methacarn	*	*	60% Methanol:30% Chloroform:10% Acetic acid
Methanol	Fisher Scientific	M/4000/17	
MgCl <sub>2</sub>	Sigma	M8266	
Normal goat serum	Vector Labs	S-1012	NGS
Normal rabbit serum	Dako	X0902	NRS
NTMT	*	*	100 mM NaCl, 100 mM Tris HCl, 50 mM MgCl <sub>2</sub> , 0.1% Tween20, 2 mM Levamisole
PAP pen	Vector	H-400	
Paraformaldehyde	Sigma	P6148	
PBT	*	*	0.5 M NaCl, 10 mM TrisHCL pH7.5, 0.1% Tween 20
Penicillin/Streptomycin	Gibco	15140-122	100x solution.
Phosphate buffered saline (10x)	Fisher Scientific	BP3994	Diluted 1:10 with distilled water to make 1x
PLL slides	Sigma	P0425-72EA	Poly-L-lysine microscope slides
Proteinase K	Sigma	P2308	
Proteinase k solution	*	*	Dilute Proteinase K at 200 µg/ml in 50 mM Tris, 5 mM EDTA.
Ralwax	BDH	36154 7N	

Reducer Solution	*	*	To make 100 ml: 1 g Hydroquinone, 5 g sodium sulphite & 100 ml distilled water
RnaseA	Sigma	R6148	
Saline	*	*	0.9% NaCl in distilled water
SDS	Sigma	I3771	
Sheep serum	Sigma	S3772	
Silver nitrate	Sigma	S/1240/46	
Silver solution	*	*	To make 100 ml: 10 ml Acetate buffer, 87 ml distilled water, 3 ml 1% silver nitrate
Sodium acetate	Fisher Scientific	S/2120/53	
Sodium Chloride	Sigma	S6753	NaCl
Sodium sulfite	Sigma	239321	
SSC	Sigma	93017	20x saline sodium citrate
Surgical tape	Fisher Scientific	12960495	
Tamoxifen	Sigma	T5648	TAM, inject without allowing the solution to cool too much as compound will drop out of solution. Solution can be re-used – store at -20 °C between uses, do not reheat more than twice.
TBS/T	Cell Signalling	#9997	
Triethanolamine hydrochloride	Sigma	T1502	
Tris-HCL	Invitrogen	15567-027	
Tween20	Sigma	TP9416	
VectaMount	Vector Labs	H-5000	
VectaShield Hardset mounting Medium with DAPI	Vector Labs	H-1500	
Vectastain ABC Kit	Vector Labs	PK-4001	
X-gal	Promega	V3941	
X-gal fixative	*	*	2% formaldehyde, 0.1% glutaraldehyde in 1x PBS
X-gal stain	*	*	X-gal stain; 200 µl X-gal (A) in 50 ml solution B (0.214 g MgCl <sub>2</sub> , 0.48 g K-ferricyanide, 0.734 g K-ferrocyanide in 500 ml PBS). Solution B can be made up in advance and stored at 4 °C
Xylene	Fisher Scientific	X/0200/21	