



扫码关注公众号



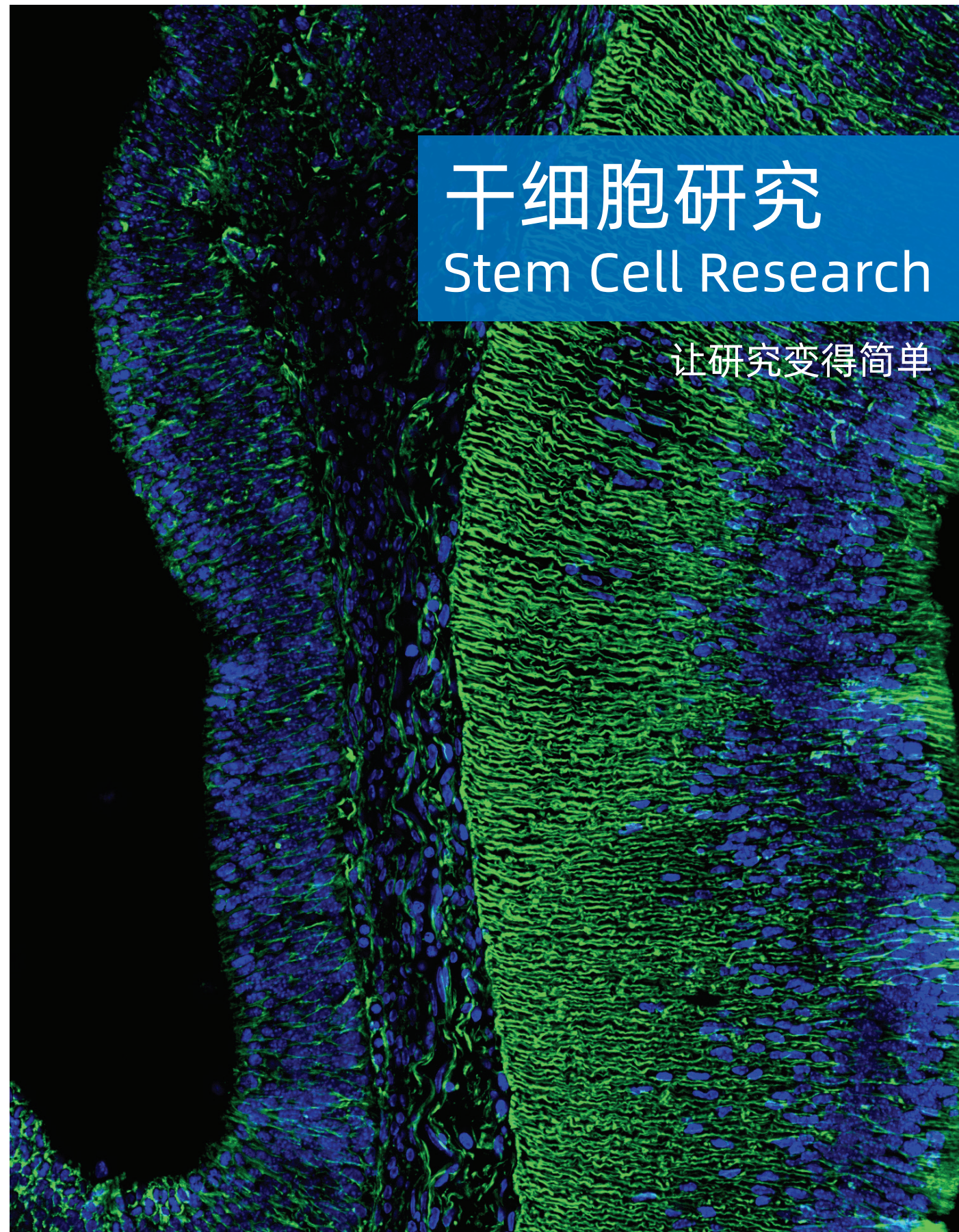
杭州华安生物技术有限公司

☎ 0571-88062880

🖨 0571-88060400

✉ sales@huabio.cn

📍 杭州市钱塘区白杨街道6号大街452号高科技企业孵化园区2号楼16层



干细胞研究 Stem Cell Research

让研究变得简单

 华安生物
H U A B I O

目录

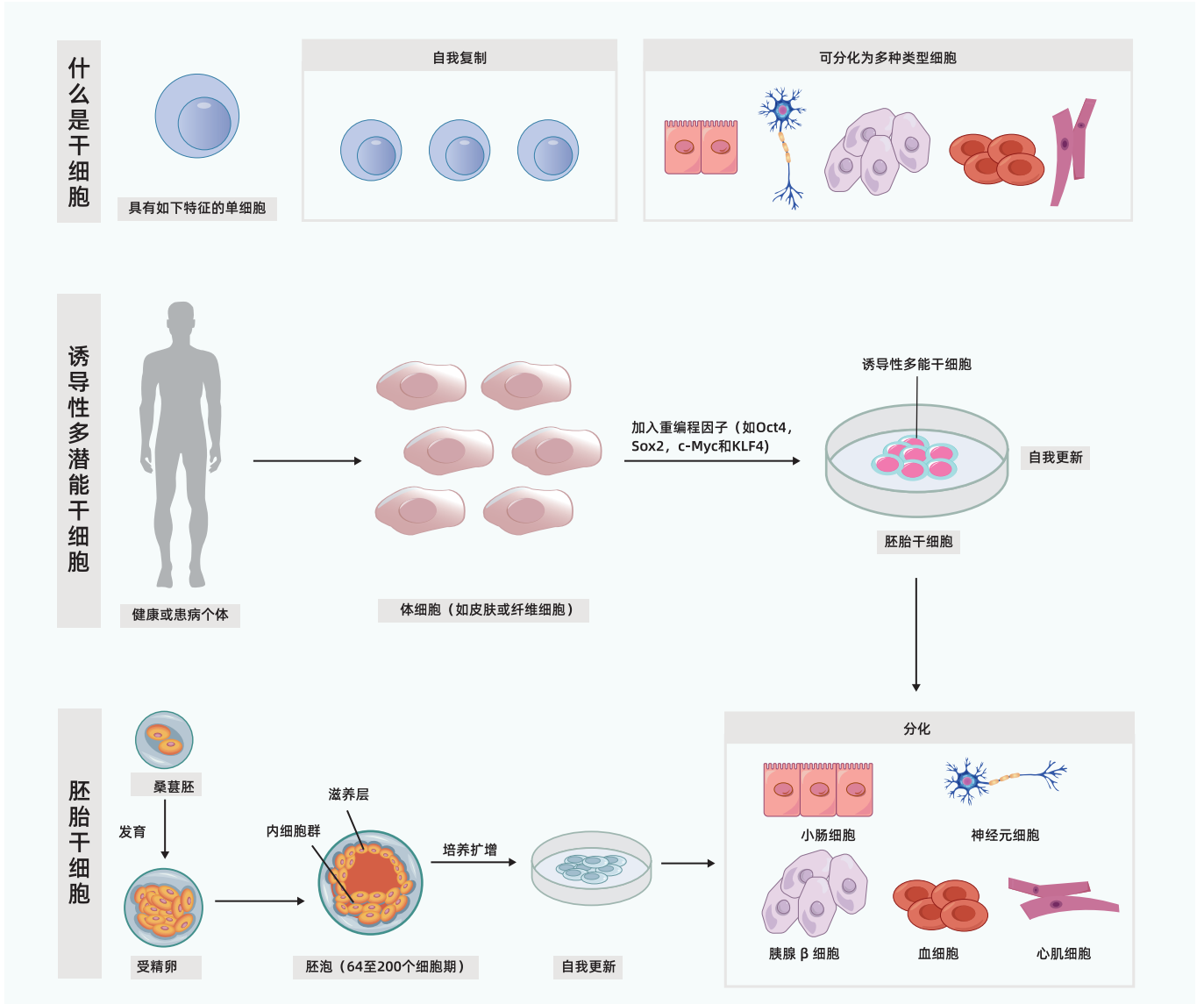
CONTENTS

1. 干细胞概述	01
2. 多能干细胞	02-10
2.1 多能干细胞鉴定	02-05
2.2 多能干细胞分化与神经谱系	06-10
3. 间充质干细胞	10-11
4. 造血干细胞	11-12
5. 干细胞关键信号调控	12-13
6. 配套产品	14-22
6.1 科研一抗	14-15
6.2 抗体小包装	16
6.3 培养因子和蛋白	17-18
6.4 配对抗体	18-21
7. 客户文献引用案例	22-24

近年来，作为再生研究领域备受关注的明星，干细胞因其独特的分化潜力和自我更新能力，为治疗多种疑难杂症提供了全新思路。无论是在神经系统疾病（如帕金森疾病）还是慢性疾病领域（如糖尿病，心脏病等），相比于传统疗法，干细胞治疗都展示了全新的解决思路。

现今，常用于研究的干细胞主要有成体干细胞和胚胎干细胞。其中，成体干细胞分布于组织的分化细胞之间，属于未分化细胞，具有多能性，仅能分化成其所在组织来源的各种细胞类型。因此，成体干细胞的主要功能是维持并修复其所在的组织。

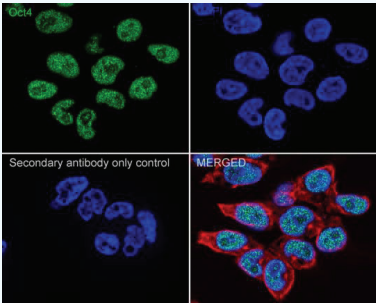
相比于成体干细胞，胚胎干细胞（ESC）具有分化成机体各种类型细胞的潜能，因此也被成为多能干细胞（PSC）。另外，体细胞通过重编程技术也可以生成另一类多能干细胞，成为诱导性多能干细胞（iPSC）。



干细胞的定义及ESC、iPSC的来源及其特征

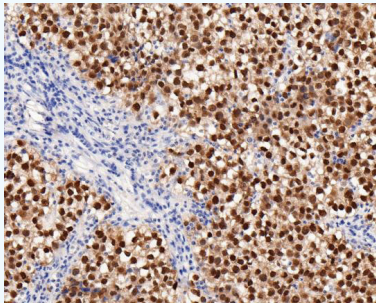
多能干细胞鉴定

一些关键转录因子（如Nanog，OCT4等）在ESC和iPSC维持未分化的干细胞状态中发挥重要调控作用。此外，PSC一般还表达特定的细胞膜蛋白，如TRA-1-60、TRA-1-81、SSEA3和SSEA4等，也可以作为有用的鉴定标志物。因此，通常采用靶向检测这些标志物的抗体用于鉴定PSC。



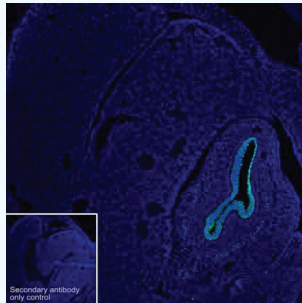
Oct4 rabbit mAb | ET1612-20

使用Oct4兔单抗（绿色）对NCCIT细胞进行 IF-Cell 分析。肌动蛋白丝用Beta tubulin（M1305-2，红色）标记。



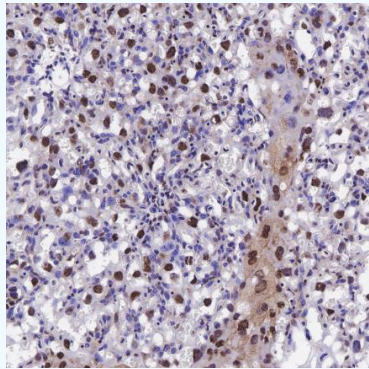
Oct4 rabbit mAb | ET1612-20

使用Oct4兔单抗（稀释比1/4，000）对人精原细胞瘤组织进行 IHC-P 分析。



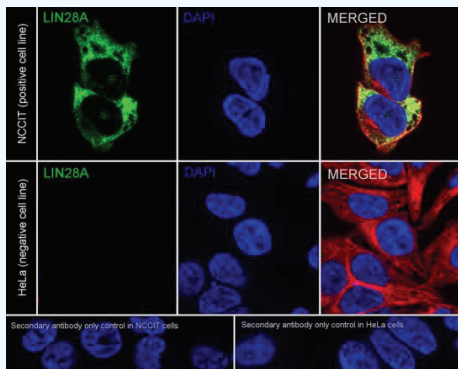
SOX2 rabbit mAb | HA721155

使用SOX2 兔单抗（稀释比1/1，000）对E14.5小鼠胚胎组织进行 IHC-Fr 分析。



Lin28A rabbit mAb | ET1704-26

使用Lin28A兔单抗（ET1704-26，稀释比1/1，000）对小鼠胎盘组织进行 IHC-P 分析。



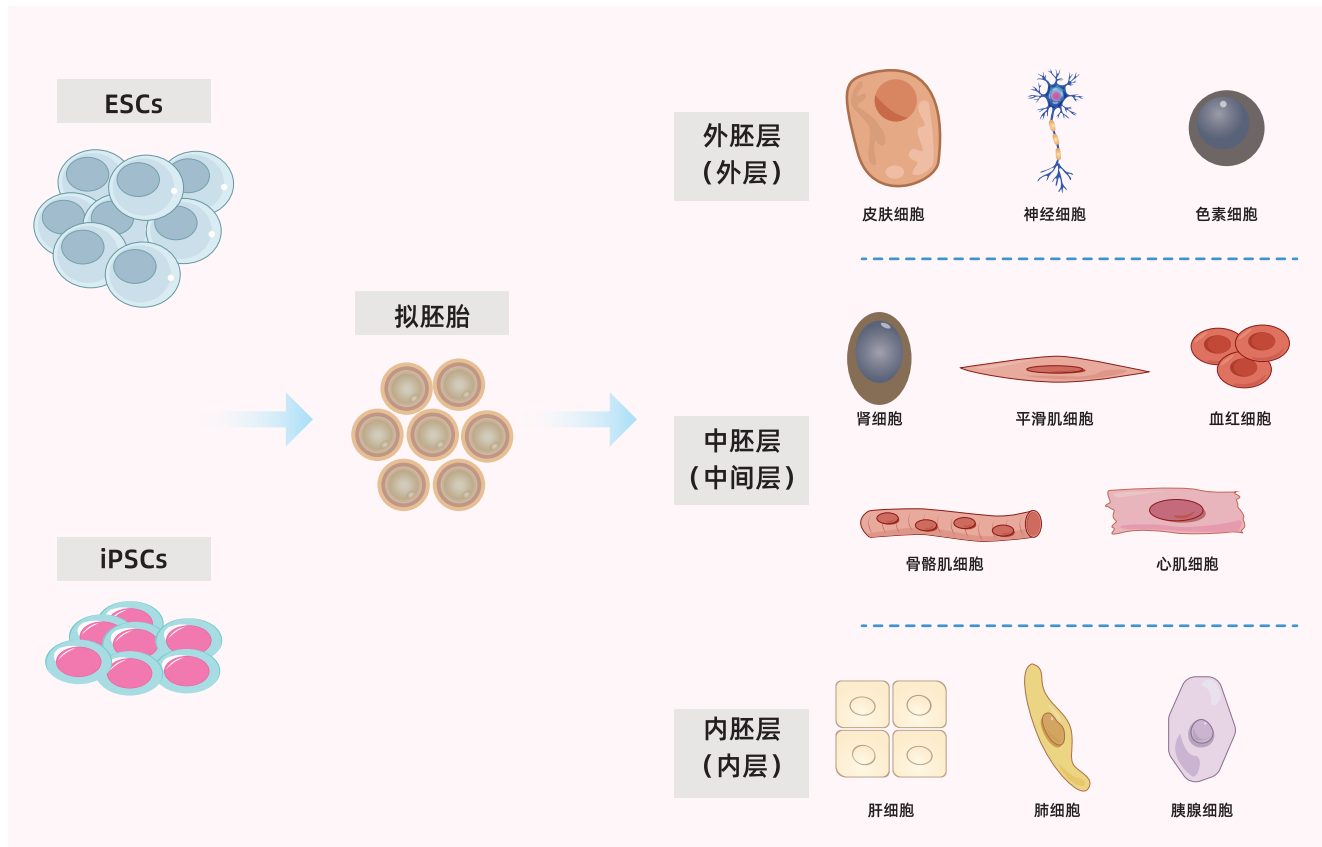
Lin28A rabbit mAb | HA722899

使用Lin28A兔单抗（HA722899，绿色）对NCCIT（阳性）和HeLa（阴性）细胞进行 IF-Cell 分析。肌动蛋白丝用Beta tubulin（M1305-2，红色）标记。

鉴定多能干细胞的优质抗体推荐

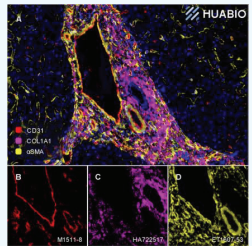
Product name	Catalog#	Reactivity	Tested applications	Antibody type
SOX9	ET1611-56	H,Ms,R	WB,IF-Cell,IHC-P,IP,FC,CUT&Tag-seq,mIHC	Recombinant Rabbit mAb
KLF4	ET1702-71	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P	Recombinant Rabbit mAb
Lin28A	ET1704-26	H,Ms,R	WB,IHC-P	Recombinant Rabbit mAb
Lin28A	HA722899	H	WB,IF-Cell,FC,IP	Recombinant Rabbit mAb
Nanog	ET1610-2	H,Ms	WB,IF-Cell,IF-Tissue,FC,IHC-P,ChIP	Recombinant Rabbit mAb
Oct4	ET1612-20	H,Ms	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC,ChIP	Recombinant Rabbit mAb
SOX2	HA721155	H,Ms,R	IHC-P,WB,IF-Cell,ChIP,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
PRMT5	ET1609-43	H,Ms,R,Mk	WB,IF-Cell,IF-Tissue,IHC-P,IP	Recombinant Rabbit mAb
Dnmt3b	ET1605-9	H,Ms,R	WB	Recombinant Rabbit mAb
c-Myc	HA721182	H,Ms,R	WB,IHC-P,IP,ChIP	Recombinant Rabbit mAb

*H: Human; Ms: Mouse; R: Rat; Mk: Monkey

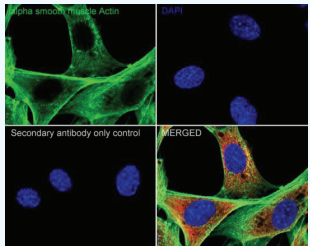


ESC、iPSC分化能性特征

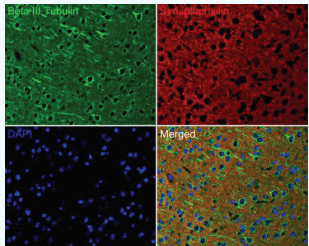
多能干细胞（PSC）在体外一定的培养条件下，7-20天可以自发分化成拟胚体（EB），具有三层胚层谱系，分别为内胚层、中胚层和外胚层结构。通常，使用靶向常用标志物的抗体鉴定EB的分化状态，如中胚层常见标志物是平滑肌肌动蛋白（SMA），外胚层常见标志物是β-III微管蛋白（TUBB3）及内胚层常见标志物是甲胎蛋白（AFP）。



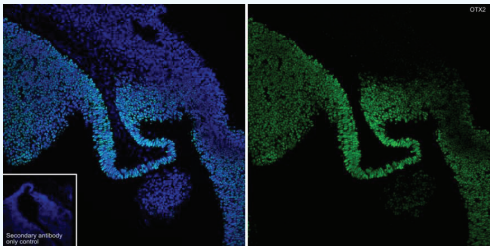
αSMA rabbit mAb | ET1607-53
使用αSMA兔单抗（稀释比1/5, 000, 黄色）对人肝组织进行 mIHC 分析。血管内皮细胞用CD31（M1511-8, 红色）标记，纤维状胶原蛋白用COL1A1（HA722517, 品红色）标记。



αSMA rabbit mAb | ET1607-53
使用αSMA兔单抗（稀释比1/2, 500, 绿色）对NIH/3T3细胞进行 IF-Cell 分析。肌动蛋白丝用Beta tubulin（M1305-2, 红色）标记。

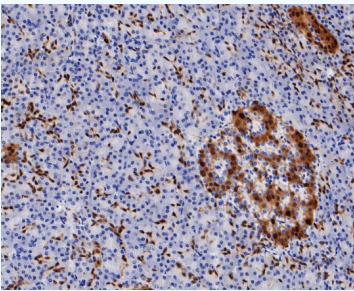


Beta III Tubulin mouse mAb | M0805-8
使用Beta III Tubulin鼠单抗（稀释比1/200, 绿色）对小鼠脑组织进行 IF-Tissue 分析。突触蛋白用Synaptophysin（ET1606-56, 红色）标记。

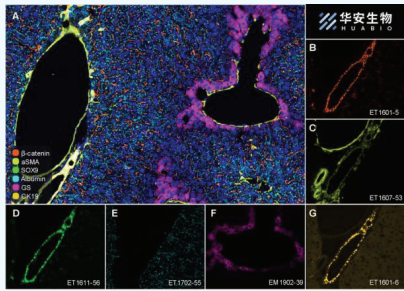


Otx2 rabbit mAb | HA721704
使用Otx2兔单抗（稀释比1/200）对E14.5小鼠胚胎组织进行 IHC-Fr 分析。

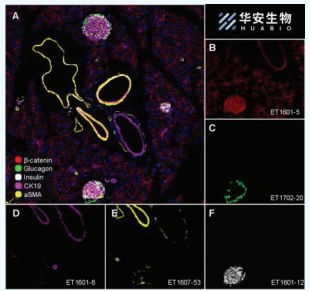
在一定体外培养条件下，PSC可以被诱导分化成成熟的肝细胞，胰腺细胞和肠道上皮细胞等，为将来利用干细胞治疗终末期肝病、糖尿病等带来新的希望。通常，使用靶向定型内胚层、胰腺、肝细胞系常见标记物的抗体来检测相应的分化状态。



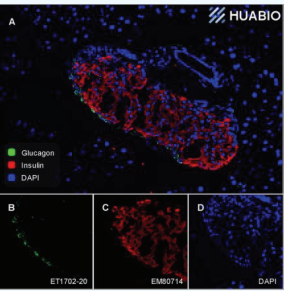
PDX1 rabbit mAb | ET1705-99
使用PDX1兔单抗对人胰腺组织进行 IHC-P 分析。



Albumin rabbit mAb | ET1702-55
使用Albumin兔单抗（ET1702-55, 青色）对小鼠肝组织进行 mIHC 分析。Anti-β-catenin（ET1601-5, 橘红色），Anti-αSMA（ET1607-53, 黄色），Anti-SOX9（ET1611-56, 绿色），Anti-GS（EM1902-39, 品红色），Anti-CK19（ET1601-6, 橘黄色）。



Insulin mAb | ET1601-12
使用Insulin兔单抗（ET1601-12, 白色）对小鼠胰腺组织进行 mIHC 分析。Anti-β-catenin（ET1601-5, 红色），Anti-Glucagon（ET1702-20, 绿色），Anti-CK19（ET1601-6, 品红色），Anti-αSMA（ET1607-53, 黄色）。



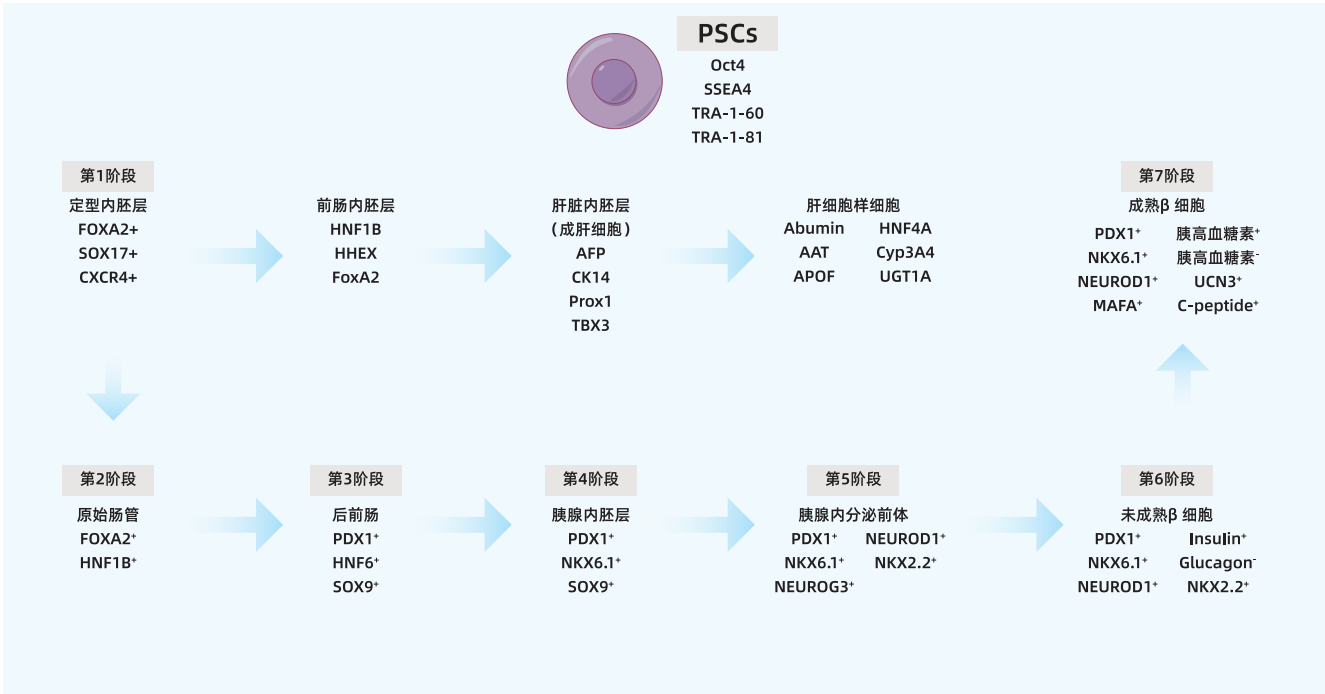
Insulin mAb | EM80714
使用Insulin鼠单抗（EM80714, 红色）对小鼠胰腺组织进行 IHC-Fr 分析。Anti-Glucagon（ET1702-20, 绿色）。

鉴定胰腺和肝细胞系的优质抗体推荐

Product name	Catalog#	Reactivity	Tested applications	Antibody type
AFP	HA721238	H	IHC-P,WB	Recombinant Rabbit mAb
Albumin	ET1702-55	H,Ms,R,C	WB,IHC-P,miIHC,IF-Tissue	Recombinant Rabbit mAb
Chromogranin A	ET1703-08	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P	Recombinant Rabbit mAb
c-Kit	ET1609-60	H	WB,IHC-P	Recombinant Rabbit mAb
CXCR4	ER1802-28	H,R	WB,IF-Cell,FC	Rabbit pAb
CXCR4	HA722304	H	WB,IF-Cell,IHC-P	Recombinant Rabbit mAb
Cytokeratin 14	EM1901-32	H	WB,IHC-P,IF-Cell	Mouse mAb
Cytokeratin 14	ET1610-42	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC	Recombinant Rabbit mAb
FOXA2	ET1703-76	H,Ms,R	WB,IF-Cell,IHC-P,IHC-Fr	Recombinant Rabbit mAb
GATA4	ET1704-32	H,Ms,R	WB,IF-Cell,FC	Recombinant Rabbit mAb
Glucagon	ET1702-20	H,Ms,R	WB,IHC-P,miIHC,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
Insulin	ET1601-12	H,Ms,R	IF-Cell,IF-Tissue,IHC-P,miIHC,IHC-Fr,WB	Recombinant Rabbit mAb
Insulin	EM80714	H,Ms,R	IHC-P,ELISA,IF-Tissue,IHC-Fr	Mouse mAb
PDX1	ET1705-99	H	WB,IHC-P,IF-Cell,IF-Tissue	Recombinant Rabbit mAb
PROX1	HA722318	H,Ms	WB,IF-Cell,IHC-P,IF-Tissue	Recombinant Rabbit mAb

*H: Human; Ms: Mouse; R: Rat; C: Cow

多能干细胞分化——肝细胞和胰腺β细胞

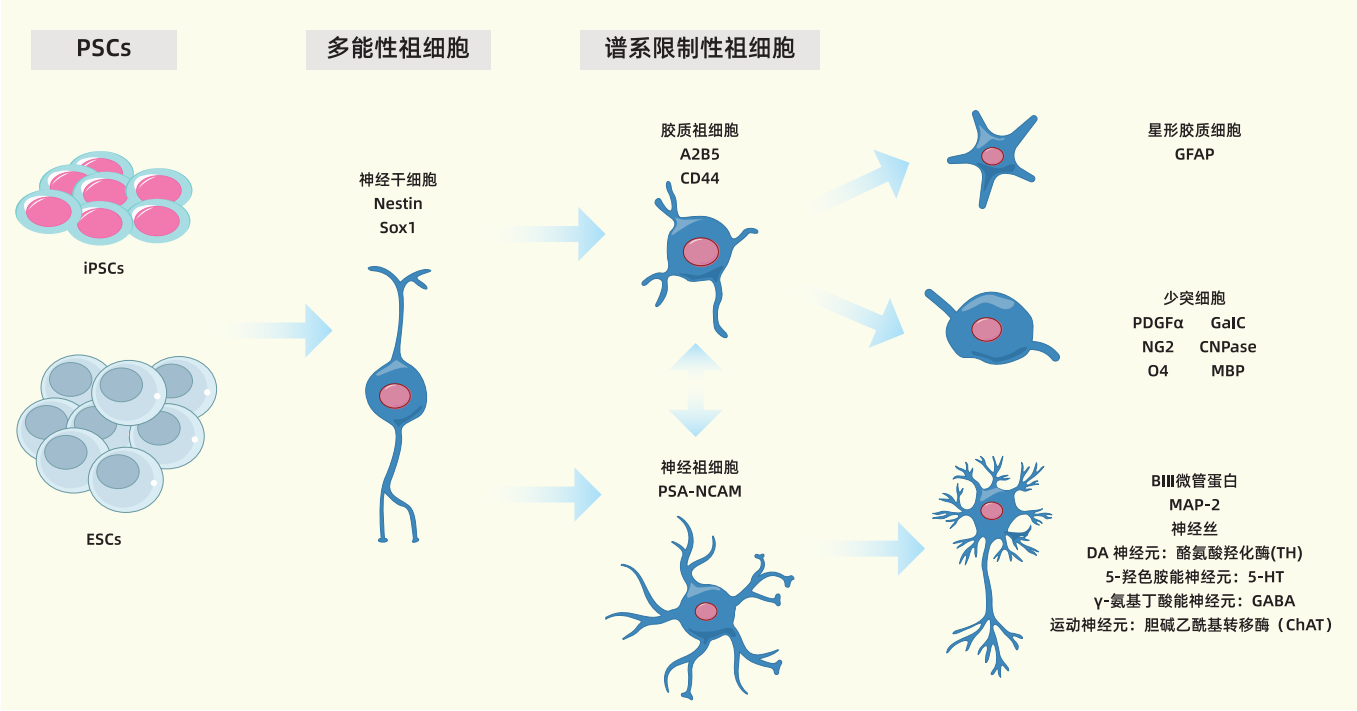


PSC体外分化成肝细胞及胰腺β细胞的一般流程

多能干细胞分化——神经细胞谱系

鉴于干细胞具有自我更新并生成分化细胞的多能性特征，因此干细胞疗法已经成为中枢和外周神经系统疾病和损伤研究领域的潜在治疗策略。神经干细胞（NSC）是存在于正在发育的和成体哺乳动物中枢神经系统中的具有自我更新能力的多能性祖细胞。

在神经分化过程中，NSC受到渐进式谱系限制生成胶质祖细胞，其可以转变为星形胶质细胞及少突细胞。谱系限制的另一个分支是神经元通路生成各种类型的神经元细胞，如多巴胺能（DA）、γ-氨基丁酸能（GABA）和运动神经元等。通常，检测一组特定的标记物的表达（如SOX1、SOX2、PAX6等）鉴别体外PSC来源的NSC。

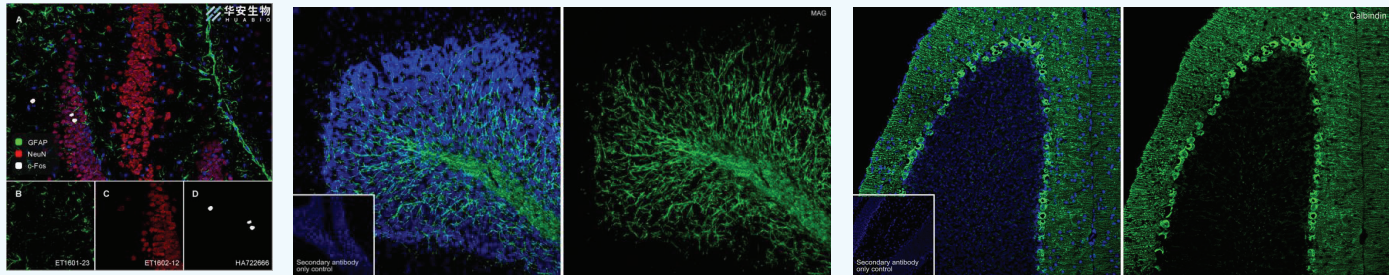


PSC体外分化成神经细胞谱系的一般流程

SOX2 rabbit mAb | HA721155
使用SOX2兔单抗（稀释比1/1,000）对E14.5小鼠胚胎组织进行IHC-Fr分析。

Nestin rabbit mAb | HA722919
使用Nestin兔单抗（稀释比1/500）对小鼠脑组织进行IHC-Fr分析。

PAX6 rabbit mAb | ET1612-58
使用PAX6兔单抗（稀释比1/2,000）对小鼠脑组织进行IHC-P分析。



GFAP rabbit mAb | ET1601-23
使用GFAP兔单抗（ET1601-23，绿色）对小鼠海马组织进行mIHC分析。
anti-NeuN（ET1602-12，红色），anti-c-Fos（HA722666，白色）。

MAG rabbit mAb | HA721818
使用MAG兔单抗（稀释比1/500）对小鼠脑组织进行IHC-Fr分析。

Calbindin rabbit mAb | ET1702-54
使用Calbindin兔单抗（稀释比1/500）对小鼠脑组织进行IHC-Fr分析。

鉴定神经谱系的优质抗体推荐

Neural stem cells				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
Nestin	HA722919	H,Ms,R	WB,IF-Cell,IHC-P,IHC-Fr,IF-Tissue,mIHC	Recombinant Rabbit mAb
Islet 1	ET1610-33	H,Ms,R	WB,IF-Cell,IHC-P,FC,IP,IHC-Fr	Recombinant Rabbit mAb
SOX2	HA721155	H,Ms,R	IHC-P,WB,IF-Cell,ChIP,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
Hes1	ET1610-97	H,Ms,R	WB,IHC-P,IHC-Fr,IF-Tissue,IF-Cell,FC	Recombinant Rabbit mAb
Musashi 1	ET1606-51	H,Ms	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC,IHC-Fr	Recombinant Rabbit mAb
PAX6	ET1612-89	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC	Recombinant Rabbit mAb
BLBP	HA723232	Ms,R	WB,IHC-P,IHC-Fr	Recombinant Rabbit mAb
Immature neurons				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
Doublecortin	ET1701-98	H,Ms,R	WB,IHC-P,IHC-Fr	Recombinant Rabbit mAb
Beta III Tubulin	M0805-8	H,Ms,R	WB,IF-Cell,IHC-P,FC,IF-Tissue	Mouse mAb
Beta III Tubulin	ET1604-17	H,Ms,R	WB,IHC-P,IP,FC,IHC-Fr,IF-Cell	Recombinant Rabbit mAb
NeuroD1	ET1703-73	H,Ms,R	WB,IP,IHC-P,IHC-Fr	Recombinant Rabbit mAb
TBR1	ET1702-97	H,Ms,R	WB,IHC-P,IF-Tissue,mIHC,IHC-Fr	Recombinant Rabbit mAb
TBR2	HA722918	H,Ms	WB,IHC-P,IHC-Fr	Recombinant Rabbit mAb
Stathmin 1	ET1609-20	H,Ms,R	WB,IF-Tissue,IHC-P,FC,IP,IHC-Fr	Recombinant Rabbit mAb
Mature neurons				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
NeuN	ET1602-12	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC,IHC-Fr,mIHC	Recombinant Rabbit mAb

Mature neurons				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
NeuN	HA601111	H,Ms,R	WB,IF-Tissue,IHC-P,IHC-Fr	Recombinant Mouse mAb
MAP2	HA723025	H,Ms,R	WB,IHC-P,IHC-Fr,IF-Cell	Recombinant Rabbit mAb
NF-L	HA721538	H,Ms,R	WB,IHC-P,IF-Cell,IF-Tissue,IHC-Fr	Recombinant Rabbit mAb
NEFM	ET1703-57	H,Ms,R	WB,IHC-P,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
Neurofilament heavy polypeptide	ET1702-72	H,Ms,R	WB,IHC-P,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
Synaptophysin	ET1606-56	H,Ms,R	WB,IHC-P,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
Synapsin II	ET7109-88	Ms,R,H	WB,IF-Tissue,IHC-P,FC	Recombinant Rabbit mAb
Synapsin I + II	HA723196	H,Ms,R	WB,IF-Cell,IHC-Fr,IHC-P,IP,IF-Tissue	Recombinant Rabbit mAb
Synaptopodin	HA723211	H,Ms,R	WB,IHC-Fr,IHC-P	Recombinant Rabbit mAb
Peripherin	HA723234	H,Ms,R	WB,IHC-P,IHC-Fr,IF-Cell	Recombinant Rabbit mAb
PSD95	ET1602-20	H,Ms,R	WB,IF-Tissue,IHC-P,IP,IHC-Fr	Recombinant Rabbit mAb
SATB2	HA722751	H,Ms,R	WB,IF-Cell,IHC-P,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
Ctip2	ET1702-76	H,Ms,R	WB,IF-Cell,IHC-P,FC,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
Neurogranin	HA721915	H,Ms,R	WB,IHC-P,IF-Tissue,IHC-Fr	Recombinant Rabbit mAb
Glutamatergic neurons				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
VGluT1	HA723217	H,Ms,R	WB,IHC-Fr,IHC-P	Recombinant Rabbit mAb
VGluT1	HA601392	Ms,R	IHC-Fr,IHC-P,WB	Recombinant Chimeric Rat Antibody
VGLUT2	HA723218	Ms,R	WB,IHC-Fr,IHC-P	Recombinant Rabbit mAb
NMDAR1	ET1703-75	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC,IHC-Fr	Recombinant Rabbit mAb
NMDAR2B	HA722284	H,Ms,R	WB,IHC-P,IHC-Fr	Recombinant Rabbit mAb
Glutamine Synthetase	EM1902-39	H,Ms,R	WB,IHC-P,FC,mIHC,IF-Tissue	Mouse mAb
Glutamine Synthetase	HA723212	H,Ms,R	WB,IHC-Fr	Recombinant Rabbit mAb
GABAergic neurons				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
GABA Transporter 1 / GAT 1	HA721496	H,Ms,R	WB,IHC-P,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
SLC32A1 / VGAT	HA601384	Ms,R	IHC-Fr,IHC-P	Recombinant Mouse mAb
SLC32A1 / VGAT	HA723292	Ms,R	IHC-Fr,IHC-P	Recombinant Chimeric Rabbit Antibody
GABA B Receptor 1	HA722653	H,Ms,R	IHC-P,IHC-Fr	Recombinant Rabbit mAb
GABA B Receptor 2	ET7106-88	H,Ms,R	WB,IHC-P,FC,IF-Cell,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
GAD65	HA722750	H,Ms,R	WB,IHC-P,IF-Tissue,IHC-Fr	Recombinant Rabbit mAb

GABAergic neurons				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
GAD65	HA601389	Ms,R	IHC-Fr,IHC-P,WB	Recombinant Chimeric Rat Antibody
Dopaminergic neurons				
product name	Catalog#	Reactivity	Tested applications	Antibody type
Tyrosine Hydroxylase	ET1611-12	H,Ms,R	WB,IF-Cell,IHC-P,FC,IF-Tissue,mIHC,IHC-Fr	Recombinant Rabbit mAb
Tyrosine Hydroxylase	ET1612-65	H,Ms,R	WB,IHC-P,IF-Tissue,IHC-Fr	Recombinant Rabbit mAb
FOXA2	ET1703-76	H,Ms,R	WB,IF-Cell,IHC-P,IHC-Fr	Recombinant Rabbit mAb
GIRK2	HA722478	H,Ms,R	WB,IHC-P,IP,IHC-Fr	Recombinant Rabbit mAb
Dopamine Transporter	HA723213	Ms,R	WB,IHC-Fr,IHC-P	Recombinant Rabbit mAb
Dopamine D2 Receptor	HA723162	H,Ms	WB,IHC-Fr,IF-Cell,FC	Recombinant Rabbit mAb
Dopamine D2 Receptor	HA723163	H,Ms,R	IHC-Fr,IHC-P	Recombinant Rabbit mAb
Serotonergic neurons				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
Tryptophan Hydroxylase 1 (TPH1)	ET1610-37	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC	Recombinant Rabbit mAb
TPH2	HA722195	Ms,R	WB,IHC-P,IHC-Fr,IP	Recombinant Rabbit mAb
5-HT (Serotonin)	HA722504	S	WB,IHC-P,IF-Tissue,IHC-Fr,ELISA	Recombinant Rabbit mAb
Cholinergic neurons				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
Choline Acetyltransferase	ET1704-16	H,Ms,R	WB,IP,IF-Cell,IHC-P,FC	Recombinant Rabbit mAb
Acetylcholinesterase	HA723219	Ms,R	WB,IHC-Fr,IHC-P	Recombinant Rabbit mAb
VACht / SLC18A3	HA723214	Ms,R	WB,IHC-Fr,IHC-P	Recombinant Rabbit mAb
Interneurons				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
Calretinin	ET1705-19	H,Ms,R	WB,IHC-P,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
Calbindin	ET1702-54	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,mIHC,IHC-Fr	Recombinant Rabbit mAb
Parvalbumin	ET1703-15	H,Ms,R	WB,IHC-P,IHC-Fr,IF-Tissue,IP	Recombinant Rabbit mAb
Somatostatin Receptor 2	HA722521	H,Ms,R	WB,IHC-P,IF-Tissue,IHC-Fr	Recombinant Rabbit mAb
Oligodendrocytes				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
PDGFR alpha	ET1702-49	H,Ms,R	WB,IHC-P,FC,IHC-Fr	Recombinant Rabbit mAb
NG2	ET1703-16	H,Ms,R	WB,IHC-P	Recombinant Rabbit mAb
Olig2	ET1604-29	H,Ms,R	WB,IHC-P,IHC-Fr,IF-Tissue,mIHC,IF-Cell	Recombinant Rabbit mAb
MAG	HA721818	H,Ms,R	WB,IHC-P,IF-Tissue,IP,IHC-Fr	Recombinant Rabbit mAb

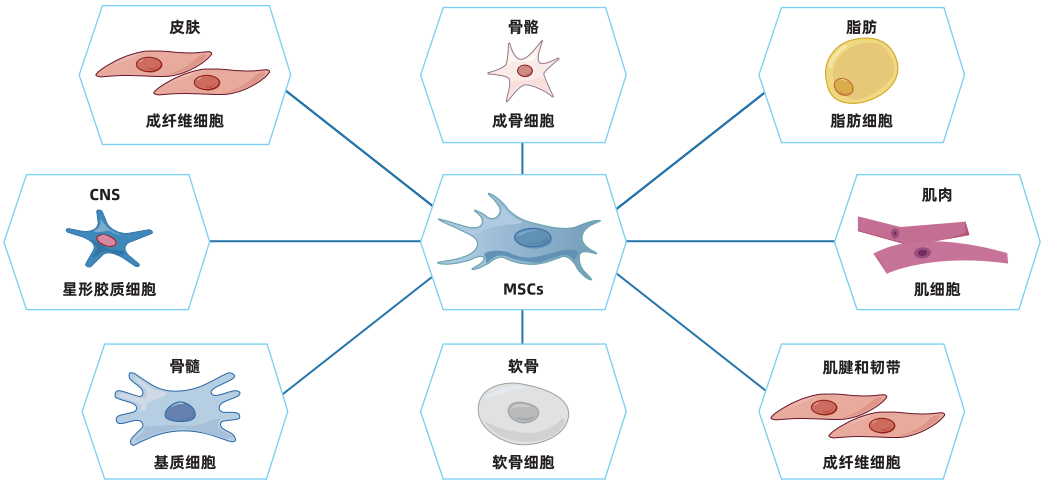
Oligodendrocytes				
Product name	Catalog#	Reactivity	Tested applications	Antibody type
MOG	ET1705-16	H,Ms,R	WB,IHC-P,IF-Tissue,IHC-Fr	Recombinant Rabbit mAb
Myelin Basic Protein	ET1702-15	H,Ms,R	WB,IHC-P,IF-Tissue,IHC-Fr,mIHC	Recombinant Rabbit mAb
Myelin PLP	HA722964	H,Ms,R	WB,IHC-P,IF-Tissue,IHC-Fr	Recombinant Rabbit mAb
SOX10	HA721240	H,Ms,R	WB,IHC-P,IF-Cell,IF-Tissue,FC,IHC-Fr,IP	Recombinant Rabbit mAb
SOX10	M1311-1	Ms	WB,IHC-P	Mouse mAb
CNPase	ET1702-46	H,Ms,R	WB,IF-Cell,IHC-P,FC,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
ASPA	HA722941	H,Ms,R	WB,IHC-P,IHC-Fr	Recombinant Rabbit mAb
QKI	HA601377	H,Ms,R	WB,IF-Cell,IHC-P,IHC-Fr,IP	Recombinant Mouse mAb
QKI-5	HA601378	H,Ms,R	WB,IHC-P,IHC-Fr,IP	Recombinant Mouse mAb
QKI-6	HA601379	Ms,R	WB,IHC-P,IHC-Fr	Recombinant Mouse mAb
QKI-7	HA601387	Ms,R	WB	Recombinant Mouse mAb

*H: Human; Ms: Mouse; R: Rat; S: Species independent



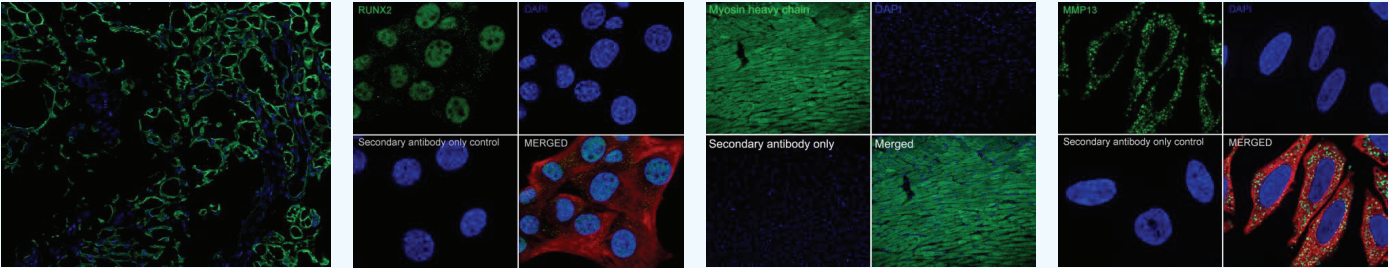
间充质干细胞（Mesenchymal Stem Cell, MSC）

间充质干细胞（MSC）可以通过分泌各种生长因子、趋化因子和细胞因子诱导细胞增殖、血管发生、抗细胞凋亡及抗炎症和免疫调控反应，发挥重要的营养功能。在体外一定培养条件下，MSC可以被诱导成脂肪细胞、软骨细胞和成骨细胞等，如下图所示。



MSC的分化潜能

间充质干细胞（Mesenchymal Stem Cell, MSC）



FABP4 rabbit mAb | ET1703-98
使用FABP4兔单抗（稀释比1/100）对小鼠脂肪组织进行 IHC-Fr 分析。

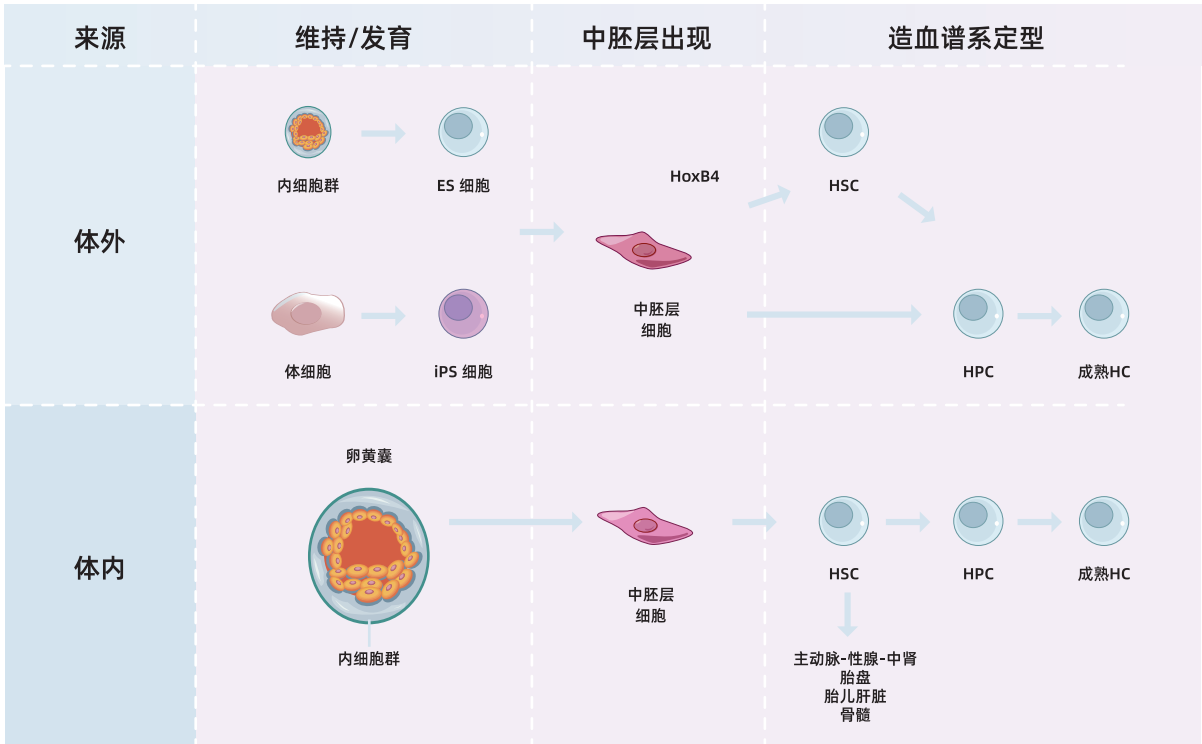
RUNX2 rabbit mAb | ET1612-47
使用RUNX2 兔单抗（稀释比1/1,000，绿色）对C2C12细胞进行 IF-Cell 分析。肌动蛋白丝用 Beta tubulin（HA601187，红色）标记。

Myosin heavy chain rabbit mAb | ET1702-88
使用Myosin heavy chain兔单抗（稀释比1/100）对大鼠心肌组织进行 IF-Tissue 分析。

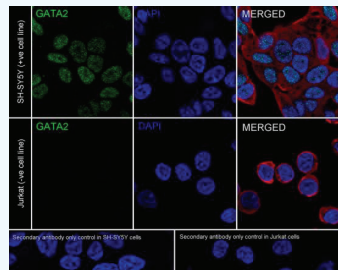
MMP-13 rabbit mAb | ET1702-14
使用MMP-13兔单抗（稀释比1/200，绿色）对HeLa细胞进行 IF-Cell 分析。肌动蛋白丝用 Beta tubulin（HA601187，红色）标记。

造血干细胞（Hematopoietic Stem Cell, HSC）

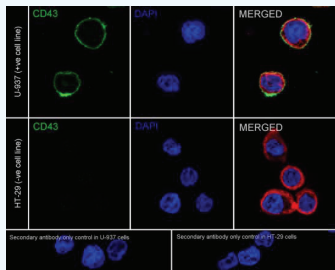
造血干细胞（HSC）是能够分化为所有血细胞类型的多潜能干细胞，包括B和T淋巴细胞、自然杀伤细胞、树突状细胞、单核细胞、血小板和红细胞。造血功能异常与多种疾病相关，如白血病、淋巴瘤和贫血。HSC移植和造血细胞输注已广泛应用于临床治疗白血病和其他类型的血液系统疾病。



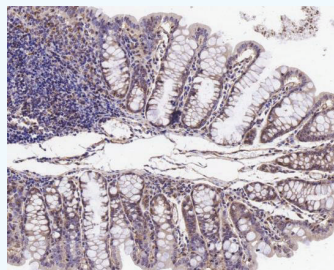
PSC体外、体内造血发育一般流程图



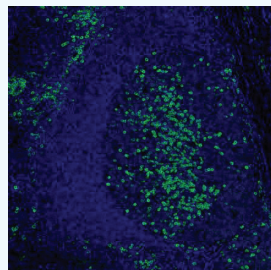
GATA2 rabbit mAb | HA722152
使用GATA2兔单抗（稀释比1/100，绿色）对H-SY5Y（阳性）和Jurkat（阴性）细胞进行IF-Cell分析。肌动蛋白用Beta tubulin（M1305-2，红色）标记。



CD43 mouse mAb | HA601286
使用CD43鼠单抗（稀释比1/250，绿色）对U-937（阳性）和HT-29（阴性）细胞进行IF-Cell分析。肌动蛋白用Beta tubulin（ET1602-4，红色）标记。



Integrin alpha 6 rabbit mAb | ET1602-1
使用Integrin alpha 6兔单抗（稀释比1/1,000）对小鼠结肠组织进行IHC-P分析。

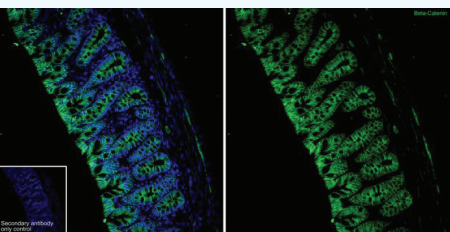


CD38 rabbit mAb | IRS006
使用CD38兔单抗对人扁桃体组织进行mIHC分析。

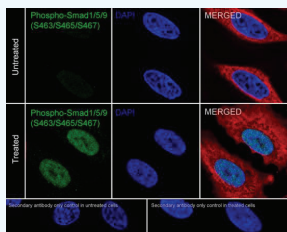
干细胞关键信号调控

干细胞疗法在组织工程和再生医学等领域的应用前景与一些关键信号通路的调控密切相关，如Wnt信号通路、BMP信号及Notch信号通路等。这些信号通路的核心作用是调控并维持干细胞的多能性，使其能够分化成不同类型的细胞。

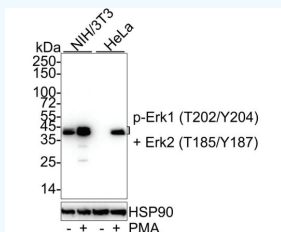
信号通路名称	在干细胞中的作用
Wnt信号通路	调控胚胎发育和干细胞的增殖；当其激活后，可以增强干细胞的自我更新能力，并抑制其向特定细胞类型的分化。
BMP信号通路	通过调控Smad1/5/9信号，在干细胞定向诱导分化成神经上皮样细胞过程中发挥关键调控作用。
PI3K/Akt信号通路	通过磷酸化关键蛋白，调控干细胞增殖，自我更新以及多能性。
Notch信号通路	主要通过Notch细胞内结构域（NICD）在干细胞多能性维持及分化过程中发挥作用。



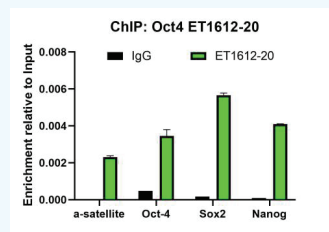
Beta Catenin rabbit mAb | ET1601-5
使用Beta Catenin兔单抗（稀释比1/200）对小鼠结肠组织进行IHC-Fr分析。



Phospho-Smad (1/5/9S463/S465/S467) rabbit mAb | HA722566
使用Phospho-Smad1/5/9（S463/S465/S467）兔单抗（稀释比1/100，绿色）对BMP4处理的HeLa细胞（BMP4，10ng/mL，1h）进行IF-Cell分析。肌动蛋白用Beta tubulin（M1305-2，红色）标记。

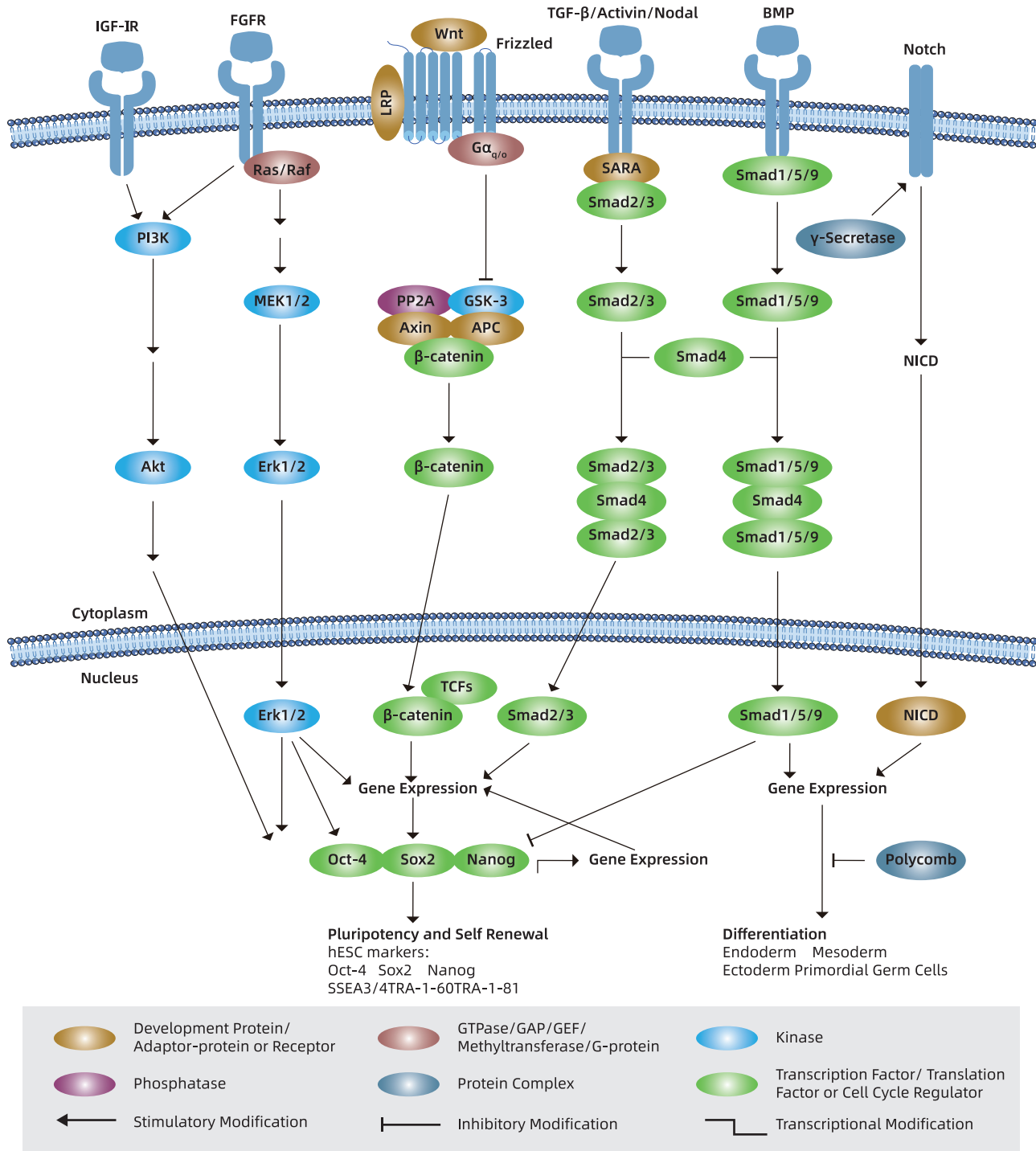


Phospho-Erk1 (T202 + Y204) + Erk2 (T185 + Y187) rabbit mAb | ET1610-13
使用Phospho-Erk1（T202 + Y204）+ Erk2（T185 + Y187）兔单抗对PMA处理（200nM，30min）的NIH/3T3细胞和HeLa细胞进行WB分析。



Oct4 rabbit mAb | ET1612-20
使用Oct4兔单抗对NCCIT细胞特定DNA片段进行ChIP分析。

ESC Pluripotency and Differentiation



多能干细胞多能性及分化调控信号通路调控

扫码了解更多
“干细胞信号通路”研究产品信息



科研一抗

通常通过靶向检测常见标志物的表达，来监测干细胞的自我更新及多能性。因此，高质量的抗体产品是推动干细胞研究领域快速发展的关键因素之一。我们提供品类齐全、经全面严格验证的用于干细胞研究的一抗，助力科研工作者在干细胞领域的前沿突破。

胚胎干细胞				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
KLF4	ET1702-71	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P	Recombinant Rabbit mAb
Nanog	ET1610-2	H,Ms	WB,IF-Cell,IF-Tissue,FC,IHC-P,ChIP	Recombinant Rabbit mAb
Oct4	ET1612-20	H,Ms	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC,ChIP	Recombinant Rabbit mAb
SOX2	HA721155	H,Ms,R	IHC-P,WB,IF-Cell,ChIP,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
c-Myc	HA721182	H,Ms,R	WB,IHC-P,IP,ChIP	Recombinant Rabbit mAb
神经干细胞				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
Fas(CD95)	ET1701-92	H	WB,IF-Tissue,IHC-P	Recombinant Rabbit mAb
Musashi 1	ET1606-51	H,Ms	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC,IHC-Fr	Recombinant Rabbit mAb
MSI2	HA721634	H,Ms,R	WB,IHC-P,IF-Cell	Recombinant Rabbit mAb
Nestin	HA722919	H,Ms,R	WB,IF-Cell,IHC-P,IHC-Fr,IF-Tissue,mIHC	Recombinant Rabbit mAb
Noggin	HA723227	H,Ms,R	WB,IHC-P	Recombinant Rabbit mAb
PAX6	ET1612-89	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC	Recombinant Rabbit mAb
SOX1	HA723215	H,Ms,R	WB,IHC-Fr,IHC-P	Recombinant Rabbit mAb
SOX2	HA721155	H,Ms,R	IHC-P,WB,IF-Cell,ChIP,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
造血干细胞				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
CD34	ET1606-11	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,IP,mIHC,FC	Recombinant Rabbit mAb
CD90 / THY1	ET1702-92	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,IHC-Fr	Recombinant Rabbit mAb
c-Kit	HA721154	H	IHC-P,WB,mIHC	Recombinant Rabbit mAb
CD38	HA721268	H	WB,IHC-P,IF-Cell,FC,mIHC,IF-Tissue	Recombinant Rabbit mAb
胰腺细胞				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
AFP	HA721238	H	IHC-P,WB	Recombinant Rabbit mAb
Albumin	ET1702-55	H,Ms,R,Cw	WB,IHC-P,mIHC,IF-Tissue	Recombinant Rabbit mAb
Chromogranin A	ET1703-08	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P	Recombinant Rabbit mAb
c-Kit	ET1609-60	H	WB,IHC-P	Recombinant Rabbit mAb

胰腺细胞				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
CXCR4	ER1802-28	H,R	WB,IF-Cell,FC	Rabbit pAb
CXCR4	HA722304	H	WB,IF-Cell,IHC-P	Recombinant Rabbit mAb
Cytokeratin 14	EM1901-32	H	WB,IHC-P,IF-Cell	Mouse mAb
Cytokeratin 14	ET1610-42	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC	Recombinant Rabbit mAb
FOXA2	ET1703-76	H,Ms,R	WB,IF-Cell,IHC-P,IHC-Fr	Recombinant Rabbit mAb
GATA4	ET1704-32	H,Ms,R	WB,IF-Cell,FC	Recombinant Rabbit mAb
Glucagon	ET1702-20	H,Ms,R	WB,IHC-P,mIHC,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
Insulin	ET1601-12	H,Ms,R	IF-Cell,IF-Tissue,IHC-P,mIHC,IHC-Fr,WB	Recombinant Rabbit mAb
Insulin	EM80714	H,Ms,R	IHC-P,ELISA,IF-Tissue,IHC-Fr	Mouse mAb
PDX1	ET1705-99	H	WB,IHC-P,IF-Cell,IF-Tissue	Recombinant Rabbit mAb
PROX1	HA722318	H,Ms	WB,IF-Cell,IHC-P,IF-Tissue	Recombinant Rabbit mAb
Pancreatic Polypeptide	HA721515	H,Ms,R	IHC-P,IHC-Fr,IF-Tissue	Recombinant Rabbit mAb
肝细胞				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
AFP	HA721238	H	IHC-P,WB	Recombinant Rabbit mAb
Albumin	ET1702-55	H,Ms,R,Cw	WB,IHC-P,mIHC,IF-Tissue	Recombinant Rabbit mAb
FOXA2	ET1703-76	H,Ms,R	WB,IF-Cell,IHC-P,IHC-Fr	Recombinant Rabbit mAb
Tat-SF1	ET7110-87	H,Ms	WB,IF-Cell,IHC-P	Recombinant Rabbit mAb
心肌细胞				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
Alpha Actinin 2	ET1702-30	H,Ms,R	WB,IHC-P,IP	Recombinant Rabbit mAb
Sarcomeric Alpha Actinin	ET7109-42	H,Ms,R	WB,IP,IHC-P	Recombinant Rabbit mAb
Cardiac Troponin I	ET1702-37	H,R	WB,IF-Cell,IF-Tissue,IHC-P,IP	Recombinant Rabbit mAb
Cardiac Troponin T	ET1610-51	H,Ms,R	WB,IHC-P,IF-Tissue	Recombinant Rabbit mAb
GATA4	ET1704-32	H,Ms,R	WB,IF-Cell,FC	Recombinant Rabbit mAb
Myogenin	HA721688	H,Ms,R	WB	Recombinant Rabbit mAb

*H: Human; Ms: Mouse; R: Rat; Cw: Cow

扫码了解更多
“干细胞研究抗体”产品信息



抗体小包装

Hematopoietic Stem Cell Marker Antibody Kit					
Antibody Kit catalog#	Product Includes	Catalog#	Quantity	Reactivity	Applications
HAK21017	CD34	ET1606-11	20µl	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,IP,mIHC,FC
	CD38	HA721268	20µl	H	WB,IHC-P,IF-Cell,FC,mIHC,IF-Tissue
	CD59	ET1703-28	20µl	H,Ms	WB,IP
	CD90 / THY1	ET1702-92	20µl	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,IHC-Fr
	c-Kit	HA721154	20µl	H	IHC-P,WB,mIHC
iPS Cell Reprogramming Antibody Kit					
Antibody Kit catalog#	Product Includes	Catalog#	Quantity	Reactivity	Applications
HAK21032	4-Oct	ET1612-20	20µl	H,Ms	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC,ChIP
	SOX2	HA721155	20µl	H,Ms,R	IHC-P,WB,IF-Cell,ChIP,IHC-Fr,IF-Tissue
	Lin28A	HA722899	20µl	H	WB,IF-Cell,FC,IP
	KLF4	ET1702-71	20µl	H,Ms	WB,IF-Cell,IF-Tissue,IHC-P
	c-Myc	HA721182	20µl	H,Ms,R	WB,IHC-P,IP,ChIP
	Goat Anti-Rabbit IgG (H+L)	HA1001	100uL	Rb	WB,ELISA,IHC-P
Pluripotency Transcription Factor Antibody Kit					
Antibody Kit catalog#	Product Includes	Catalog#	Quantity	Reactivity	Applications
HAK21089	Nanog	ET1610-2	20µl	H,Ms	WB,IF-Cell,IF-Tissue,FC,IHC-P,ChIP
	4-Oct	ET1612-20	20µl	H,Ms	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC,ChIP
	SOX2	HA721155	20µl	H,Ms,R	IHC-P,WB,IF-Cell,ChIP,IHC-Fr,IF-Tissue

*H: Human; Ms: Mouse; R: Rat; Rb: Rabbit

培养因子和蛋白

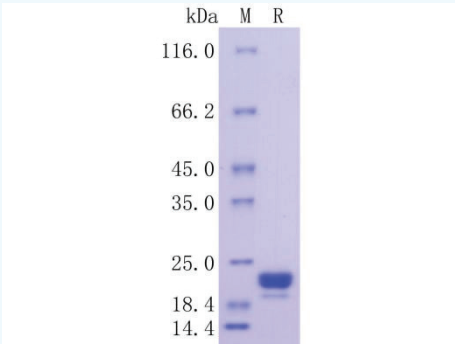
高质量的细胞因子和生长因子用于诱导、扩增和分化多能干细胞，使其分化为任意细胞类型，从而用于相关疾病模型的研究，这类细胞因子成为干细胞因子（Stem Cell Factor, SCF）。例如，通常使用BDNF，GDNF，bFGF，EGF等细胞因子用于神经干细胞的分化培养。

Product name	Catalog#	Source
Human GM-CSF, Tag Free	HA210712	HEK293
Human EGF, Tag Free	HA210717	HEK293
Human FGF2/b-FGF, C-His, Flag Tag	HA210582	E.coli
Human IL-1 beta/IL1B, C-His Tag	HA210576	HEK293
Human IL-2, Tag Free	HA210795	HEK293
Human IL-3, Tag Free	HA210928	HEK293
Human IL-4, Tag Free	HA210763	HEK293
Human IL-5, C-His Tag	HA210594	HEK293
Human IL-6, Tag Free	HA210797	HEK293
Human IL-7, Tag Free	HA210815	HEK293
Human PDGF-B, Tag Free	HA210859	HEK293
Human Mature TGF beta 1 Protein	HA210007	HEK293
Mouse LIF, C-His Tag	HA21073	HEK293
Human FGF-4, C-His Tag	HA210946	E.coli
Human FGF7, Tag Free	HA210829	E.coli
Human Noggin/NOG, Tag Free	HA210726	HEK293
Human R-spondin-1/RSPO1, Tag Free	HA210730	HEK293
Human TNF-alpha, C-His Tag	HA210761	HEK293
Mouse TNF-alpha, C-His, Flag Tag	HA210527	HEK293
Human FGF10, C-Flag	HA210794	E.coli
Human HGF, Tag Free	HA210913	HEK293
Human NRG1, C-Flag (176-246)	HA210750	E.coli
Human NRG1, Tag Free	HA210772	HEK293
Human Prolactin/PRL, C-His, Flag Tag	HA210676	HEK293

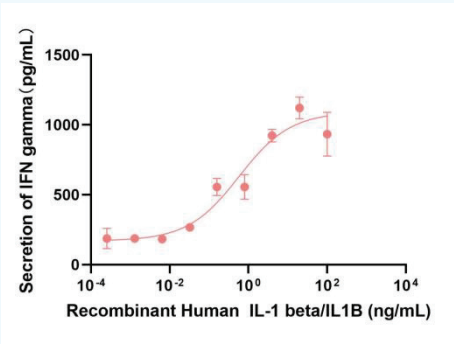
扫码了解更多
“干细胞研究蛋白”产品信息



IL-1 beta通常用于胚胎干细胞（ESC）的培养，可以加速ESC的增殖和自我更新

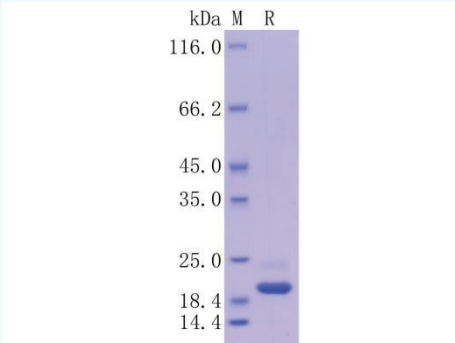


人源IL-1 beta重组蛋白 | HA210576
SDS-PAGE检测结果显示，蛋白纯度高于95%。

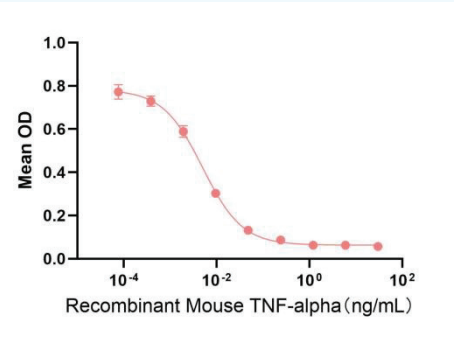


人源IL-1 beta重组蛋白 | HA210576
用人恶性非霍奇金淋巴瘤自然杀伤细胞NK-92进行INF-gamma诱导实验，结果显示ED50= 0.2-2 ng/mL。

TNF-alpha通过下调c-kit，抑制SCF刺激的造血干细胞（HSC）增殖，完全阻断干细胞因子和GM-CSF或干细胞因子和IL-3联合引起的集落形成。



鼠源TNF-alpha重组蛋白 | HA210527
SDS-PAGE检测结果显示，蛋白纯度高于95%。



鼠源TNF-alpha重组蛋白 | HA210527
用小鼠成纤维细胞L-929进行细胞毒性实验，结果显示ED50= 4-20 pg/mL。

配对抗体

抗体对是由针对同一蛋白抗原上不同表位的特异性抗体，通常其中一个用于捕获靶抗原（常称为捕获抗体，Capture Antibody），另一个则用于检测此复合物的信号（常称为检测抗体，Detection Antibody或Detector）。我们提供高特异性、高灵敏度的配对抗体用于干细胞领域的研究，保证实验结果的准确与可靠。

间充质干细胞			
Product name	Catalog#	Tested applications	Antibody type
Human Adiponectin	HA722260	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human Adiponectin	HA722261	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human CD31	HA722906	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human CD31	HA722907	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human Osteopontin	HA723004	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human Osteopontin	HA723005	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human Osteopontin	HA723006	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human sTNF RI	HA723158	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human sTNF RI	HA723159	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Mouse Pro-Collagen I alpha 1	HA722934	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Mouse Pro-Collagen I alpha 1	HA722935	ELISA(Det)	Recombinant Rabbit monoclonal Antibody

内皮祖细胞			
Product name	Catalog#	Tested applications	Antibody type
Human SCF	HA722871	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human SCF	HA722872	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human Von Willebrand Factor	HA723058	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human Von Willebrand Factor	HA723059	ELISA(Det)	Recombinant Rabbit monoclonal Antibody

神经干细胞			
Product name	Catalog#	Tested applications	Antibody type
GFAP	HA601342	ELISA(Det)	Recombinant Mouse monoclonal Antibody
GFAP	HA722234	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human FGF-2	HA721780	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human FGF-2	HA721781	ELISA(Det)	Recombinant Rabbit monoclonal Antibody

造血祖细胞			
Product name	Catalog#	Tested applications	Antibody type
Human CD137	HA723009	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human CD137	HA723010	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human CD137	HA723012	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human CD137	HA723013	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human CD27/TNFRSF7	HA722973	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human CD27/TNFRSF7	HA722974	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human CD27/TNFRSF7	HA722975	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human CD276	HA722491	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody

造血祖细胞			
product name	Catalog#	Tested applications	Antibody type
Human CD276	HA722492	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human CD31	HA722906	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human CD31	HA722907	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human CD33	HA722254	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human CD33	HA722255	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human CD80	HA723123	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human CD80	HA723124	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human CD80	HA723125	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human CTLA-4	HA722954	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human CTLA-4	HA722955	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human E-Cadherin	HA723055	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human E-Cadherin	HA723056	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human ICAM1	HA723184	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human ICAM1	HA723185	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human IFNGR1	HA722679	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human IFNGR1	HA722680	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human IL-1RA	HA722788	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human IL-1RA	HA722789	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human Interferon gamma	HA721574	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human Interferon gamma	HA721575	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human Interferon gamma	HA721576	ELISA(Det),ELISA	Recombinant Rabbit monoclonal Antibody
Human Interferon gamma	HA721683	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human Interferon gamma	HA721684	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human Interferon gamma	HA721685	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human NCAM1	HA722946	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human NCAM1	HA722947	ELISA(Det),ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human NCAM1	HA722949	ELISA(Det)	Recombinant Rabbit monoclonal Antibody
Human OX40/TNFRSF4	HA723187	ELISA(Cap)	Recombinant Rabbit monoclonal Antibody
Human OX40/TNFRSF4	HA723188	ELISA(Det)	Recombinant Rabbit monoclonal Antibody

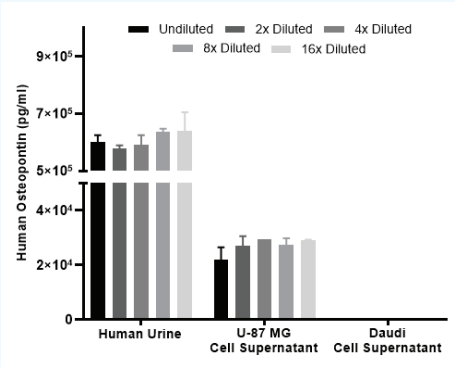
扫码了解更多
“干细胞研究配对” 抗体信息



人源Osteopontin配对抗体

Capture: HA723004; Detector: HA723005

Osteopontin（骨桥蛋白）通过增加体外毛细血管的形成来剂量依赖性地增加人骨髓间充质干/基质细胞（hBM MSC）增殖和成骨分化。

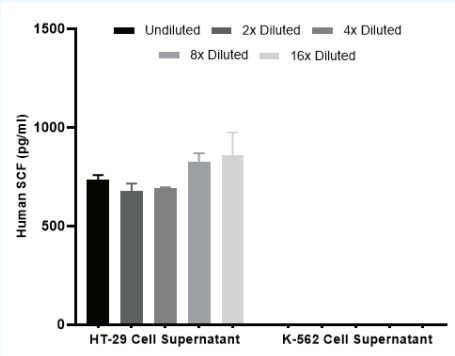


使用人源Osteopontin配对抗体检测不同样本，结果表明：
人尿液中Osteopontin含量的平均值是493 ng/mL；
U-87 MG细胞提取物上清中Osteopontin含量的平均值是25 ng/mL；
Daudi细胞提取物上清中Osteopontin含量低于检测限。

人源SCF配对抗体

Capture: HA722871; Detector: HA722872

SCF（干细胞生长因子）可以快速激活休眠的干细胞并促使其生长，同时可以调节机体内微环境，为干细胞提供有利的生长条件。

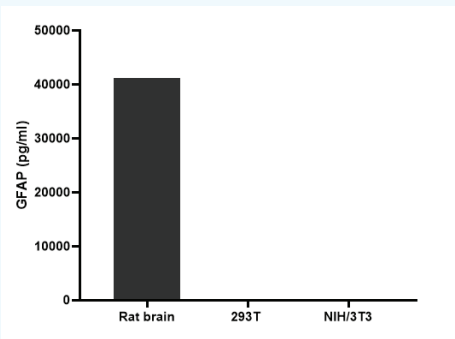


使用人源SCF配对抗体检测不同样本，结果表明：
HT-29细胞提取物上清中SCF含量的平均值是759 pg/mL；
K-562细胞提取物上清中SCF含量低于检测限。

GFAP配对抗体

Capture: HA722234; Detector: HA601342

GFAP（胶质纤维酸性蛋白）是星形胶质细胞的典型标记物，GFAP启动子通过控制EGFP的表达可以有效在体外筛选骨髓基质干细胞神经胶质的筛选，作为神经系统潜在的细胞替代治疗策略。



使用GFAP配对抗体检测不同样本，结果表明：
大鼠脑组织提取物中GFAP含量的平均值是41.29 ng/mL；
293T和NIH/3T3细胞提取物上清中GFAP含量低于检测限。

Case 1

标题: In vivo self-assembled bispecific fluorescence probe for early detection of bladder cancer and metastasis

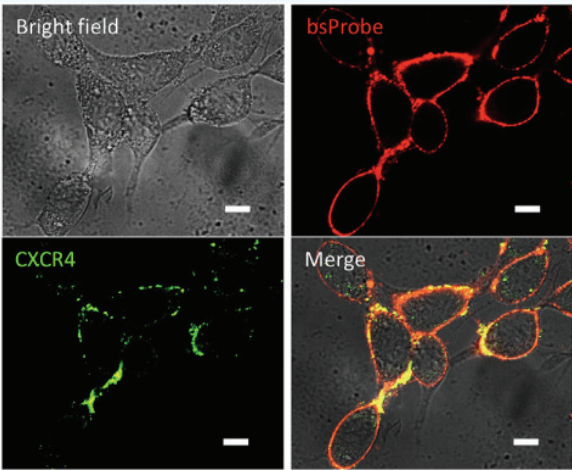
IF: 18.8

期刊: *Science Bulletin* (2024).

产品名称: **CXCR4 rabbit mAb | HA722304**

应用: IF-Cell

科研单位: 哈尔滨医科大学



The colocalization fluorescent images of CXCR4 (GFP) and bsProbe (50μmol/L, 30min) by CLSM imaging. Scale bar: 5 μm.

Case 2

标题: A human organoid drug screen identifies α2-adrenergic receptor signaling as a therapeutic target for cartilage regeneration

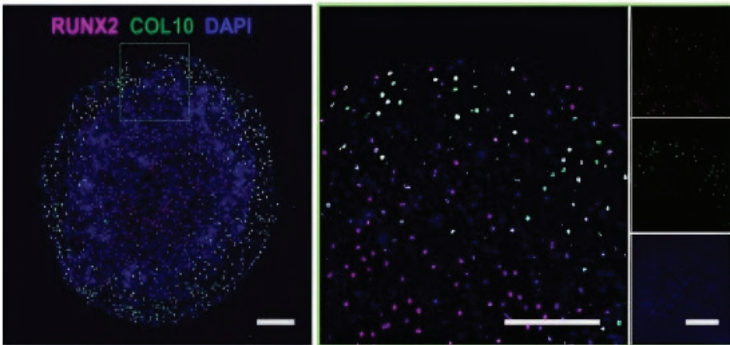
IF: 19.8

期刊: *Cell Stem Cell*. 2024 Dec 5;31 (12):1813-1830.e8.

产品名称: **RUNX2 rabbit mAb | ET1612-47**

应用: IF-Tissue

科研单位: 南方医科大学



Representative immunofluorescence images of cryosections from day 42 organoids. Scale bars, 200μm.

Case 3

标题: Targeted Macrophage CRISPR-Cas13 mRNA Editing in Immunotherapy for Tendon Injury

PMID: 38302097

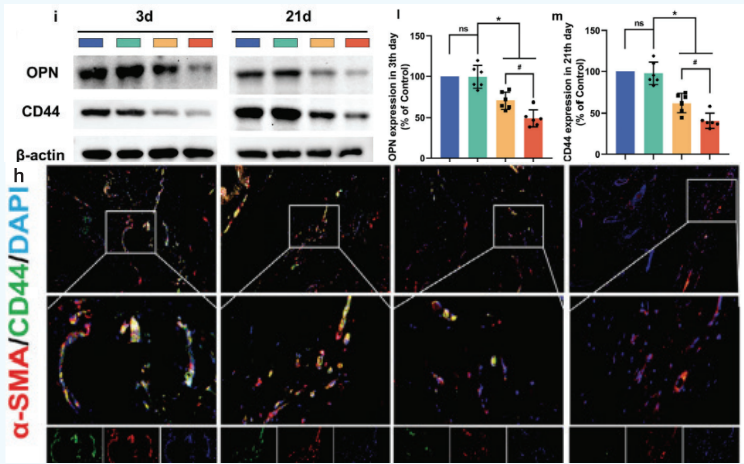
IF: 27.4

期刊: *Adv Mater*. 2024 May;36(19):e2311964.

产品名称: **CD44 rabbit mAb | ET1609-74**

应用: IF-Tissue, WB

科研单位: 上海市第六人民医院



(i) Representative protein bands of SPP1 and CD44 in PA 3 and 21 days after surgery by western blotting; h) immunofluorescence staining of α-SMA/CD44 in peritendinous tissues.

Case 4

标题: Multifunctional and immunoregulatory microenvironment-responsive hydrogel for whole course management of infected diabetic wounds

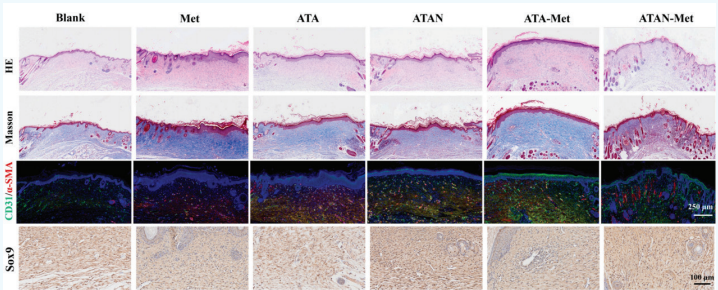
IF: 13.3

期刊: *Chemical Engineering Journal* 497. (2024)154924.

产品名称: **CD31 rabbit pAb | ER31219**

应用: IF-Tissue

科研单位: 四川大学华西医院



Histological analysis by Hematoxylin and Eosin (H&E) staining, Masson staining, immunofluorescence staining of CD31 and α-SMA, and immunohistochemistry staining of Sox9 at Day 14.

Case 5

标题: Modulating cell stiffness for improved vascularization: leveraging the MIL-53 (fe) for improved interaction of titanium implant and endothelial cell

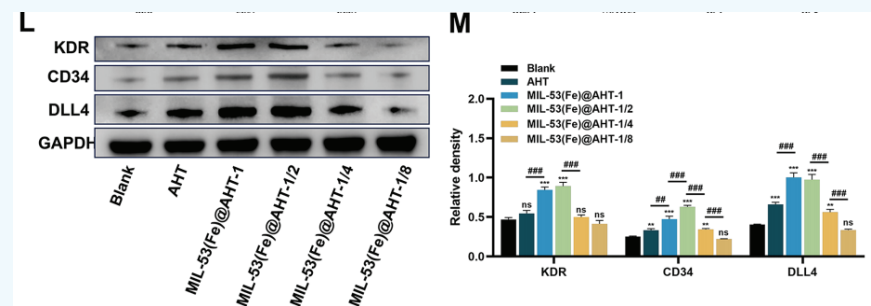
IF: 10.6

期刊: *Journal of Nanobiotechnology*. (2024) 22:422.

产品名称: **CD34 rabbit mAb | ET1606-11**

应用: WB

科研单位: 中山大学



(L, M) Immunoblotted images for KDR, CD34, DLL4 and GAPDH of HUVECs induced by the scaffolds from diverse groups.

Case 6

标题: Biomimetic zwitterionic copolymerized chitosan as an articular lubricant

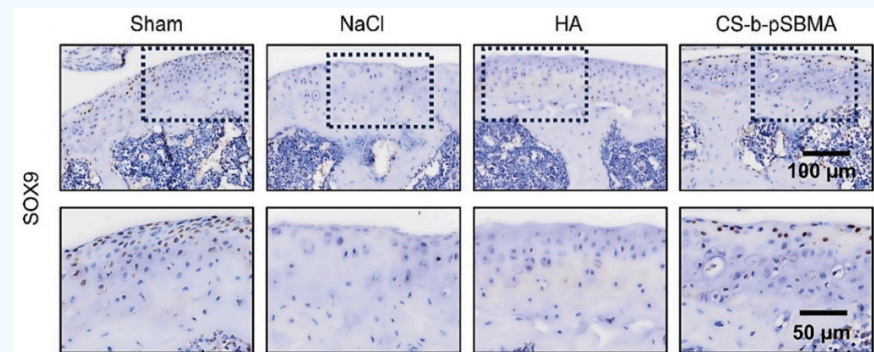
IF: 11.2

期刊: *Carbohydrate Polymers* 330. (2024) 121821.

产品名称: **SOX9 rabbit mAb | ET1611-56**

应用: IHC-P

科研单位: 温州医科大学



Representative images of SOX9 protein immunohistochemical staining.