



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

代谢性疾病药物开发解决方案 Solutions for Metabolic Disease Drug Development

• 从靶点发现到临床前研究的一站式解决方案

让研究变得简单



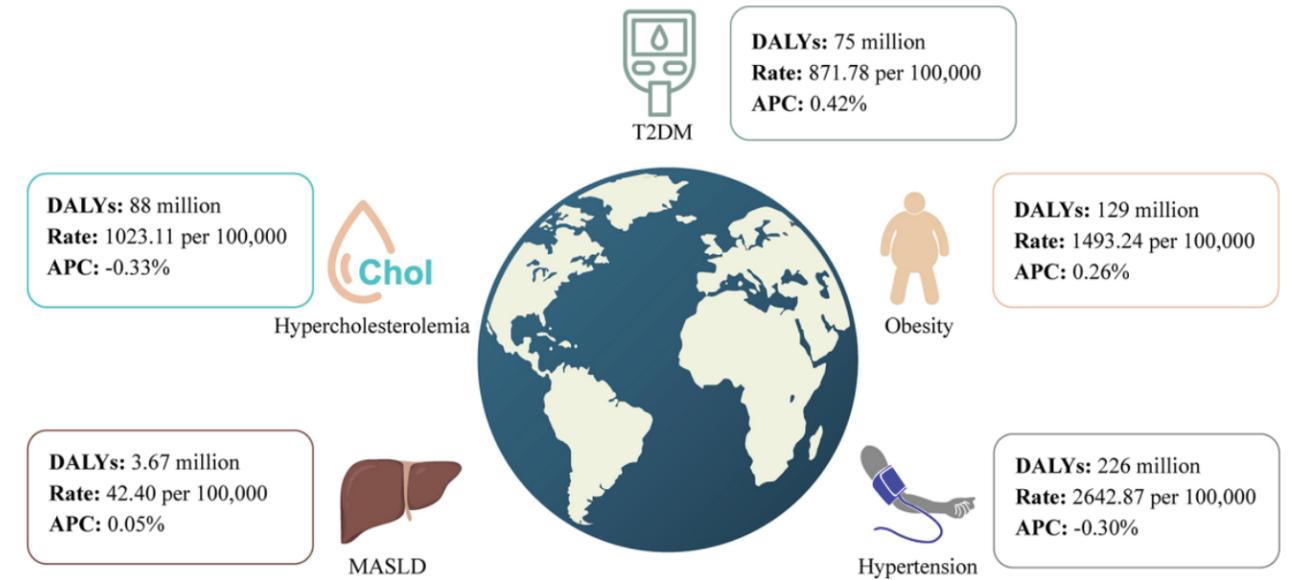
 华安生物
H U A B I O

目录

CONTENTS

1. 疾病聚焦领域：降糖减重代谢性疾病	01-02
2. 疾病聚焦：降糖减重代谢性疾病—1型糖尿病	03-05
3. 疾病聚焦：降糖减重代谢性疾病—2型糖尿病	06-08
4. 疾病聚焦：降糖减重代谢性疾病—肥胖	09-11
5. 疾病聚焦：降糖减重代谢性疾病—代谢相关脂肪性肝病	12-14
6. 热门产品推荐	15-25
6.1 重组蛋白	15-17
6.2 配对抗体	17-19
6.3 Cytokine/Biomarker ELISA检测试剂盒	20-22
6.4 多重免疫组化技术（mIHC）整体解决方案	23-24
6.5 PCR/qPCR支原体检测试剂盒	24-25

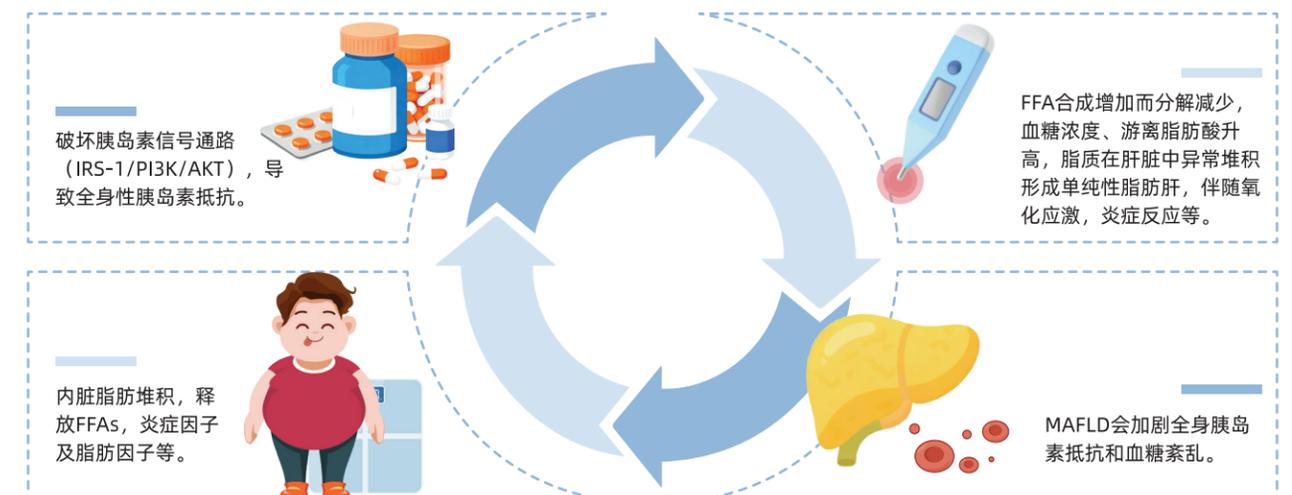
随着全球生活方式的演变，肥胖、2型糖尿病（T2D）和代谢相关脂肪性肝病（MAFLD）构成的共病网络已成为重大公共卫生挑战。这些疾病共享胰岛素抵抗、能量正平衡和脂毒性等核心病理生理驱动因素，相互加剧，形成恶性循环。



肥胖症、糖尿病与代谢相关脂肪性肝病等代谢性疾病的流行病学 (PMID: 39151887)

肥胖、T2D与MAFLD的互作机制 — 错综复杂的代谢性疾病网络

- 肥胖作为始动因素，诱发全身性胰岛素抵抗，是T2D的主要风险因素；
- 胰岛素抵抗与肥胖共同驱动肝脏脂质堆积与损伤，进展为MAFLD及其更高级形式 — 代谢相关脂肪性肝炎（MASH）；
- 慢性炎症是连接三者的“金线”，脂肪组织、肝脏和胰腺中的免疫细胞浸润与炎症因子释放，进一步加剧胰岛素抵抗与β细胞功能障碍。



肥胖症、糖尿病与代谢相关脂肪性肝病的关系

降糖减重代谢性疾病的策略与进展

当前的药物开发策略已从单纯的降糖，转向**兼顾减重、护心、护肾、护肝**的多重获益。

基于肠促胰素的疗法

- GLP-1受体激动剂；
- 实现葡萄糖依赖性胰岛素分泌、抑制胰高血糖素、延缓胃排空和中枢性食欲抑制。

多靶点激动剂

- GIPR/GLP-1R双重激动剂；
- GLP-1R/GCGR双重激动剂、GLP-1R/GIPR/GCGR三重激动剂旨在同时调控血糖、能量消耗和肝脏脂肪代谢。

能量消耗与代谢调节

- 靶向中枢（如MC4R激动剂）或外周（如AMPK激动剂）以增加能量消耗和改善代谢。

肝脏脂代谢与炎症靶向

- FXR激动剂、FGF21类似物、THR-β激动剂、ASK1抑制剂主要针对NAFLD和NASH；
- 旨在减轻肝脏脂肪变性、炎症和纤维化。

华安生物（HUABIO）赋能降糖减重代谢性疾病药物开发

华安生物（HUABIO）提供经严格验证的重组蛋白、抗体、检测试剂盒及类器官解决方案等，全面支持代谢性疾病药物研发的关键环节。

药物开发流程



华安生物（HUABIO）解决方案赋能

为更好地为生物医药领域提供生物试剂产品及解决方案，华安生物（HUABIO）提供重组蛋白、体外诊断原料—病理IHC抗体、配对抗体及小分子抗体、试剂盒等产品及一站式服务，全面覆盖靶点发现与验证、先导化合物筛选与优化以及临床前功能与机制研究等关键药物开发环节，为降糖减重代谢性疾病药物开发的快速推进提供有力支持。

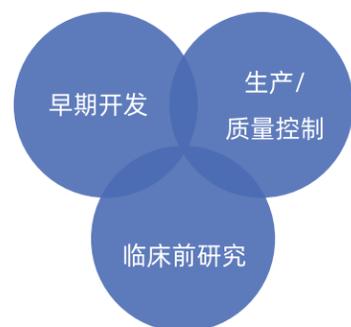
靶点发现与验证

重组蛋白：提供高纯度（>95%）、低内毒素（<1.0 EU/μg）的靶点蛋白，适用于SPR/BLI结合分析。

验证抗体：提供的抗体经KO/KD验证，适用于多种应用（IHC-P, ICC/IF, WB, FC），确保靶点定位与表达研究中的数据特异性与可重复性。

先导化合物筛选与优化

提供适用于高通量筛选的野生型与标签化靶点蛋白，助力快速完成分子库筛选与构效关系研究。



类器官解决方案；

抗体定制及开发服务；

Cytokine/Biomarker 配对抗体及相应ELISA检测试剂盒。

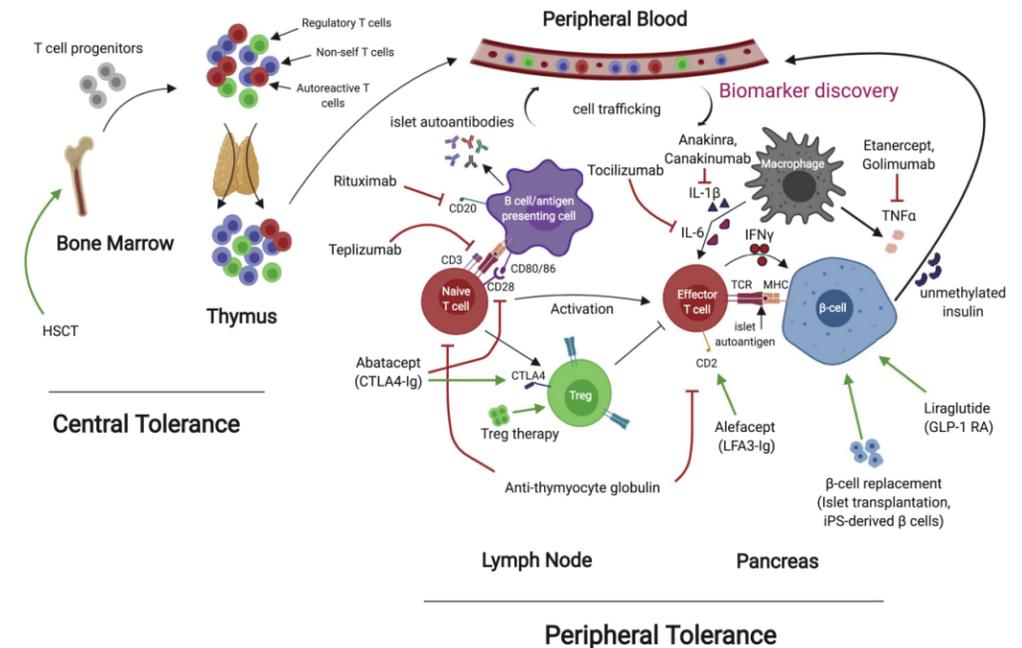
支原体PCR/QPCR检测试剂盒；

细胞凋亡检测试剂盒；

ADC小分子检测抗体；

食品小分子检测。

1型糖尿病是一种自身免疫性疾病，特征为胰岛β细胞被破坏，导致绝对胰岛素缺乏。当前的研究焦点集中于**免疫耐受调节、β细胞保护/再生和替代疗法**（如干细胞衍生胰岛细胞）。



1型糖尿病免疫耐受的机制及治疗示意图（PMID: 31839487）

热门靶点概览

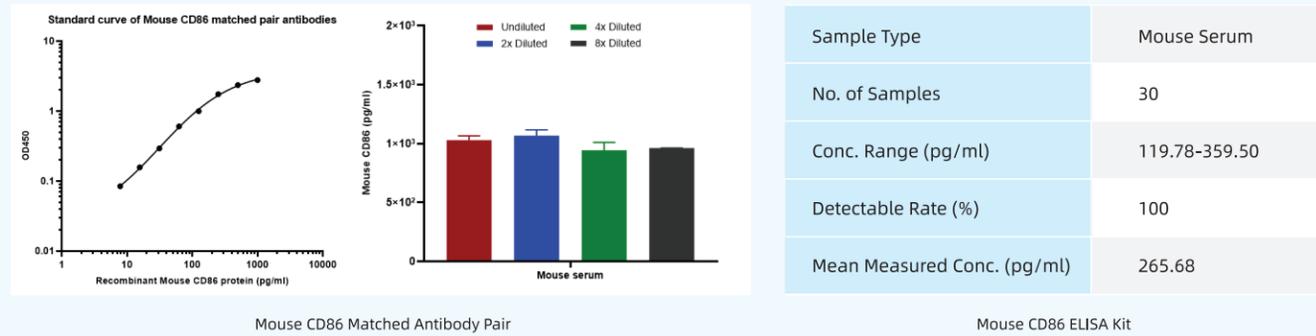
靶点类别	代表靶点	主要功能
效应T细胞	CD8, CD3	直接介导β细胞杀伤
炎症因子	IFN-γ, IL-1β, IL-21, TNF-α, IL-6, IL-17A	驱动局部炎症，破坏β细胞功能与存活
免疫检查点	CTLA-4, PD-1/PD-L1	维持免疫耐受，其功能失调导致自身免疫攻击
免疫协同	CD28, CD80, CD86, CD40/CD40L, MAdCAM-1	共同构成一个从系统激活到局部浸润的精密协同网络，有望成为阻止或延缓自身免疫攻击的关键调控靶点
免疫耐受与平衡	FoxP3, TNFR2 (TNFRSF1B)	作为免疫耐受与平衡的关键调节器，有望成为恢复免疫稳态、干预疾病进程的明星靶点
β细胞保护	GLP-1R, GIPR	通过促进β细胞存活与功能，提供代谢保护

验证数据精选

CD86

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Mouse CD86	HA723552	ELISA(Cap)	15.6-4,000 pg/ml
Mouse CD86	HA723553	ELISA(Det)	
Mouse CD86 ELISA Kit	EM0046	ELISA	0.28 pg/ml (10 μl)

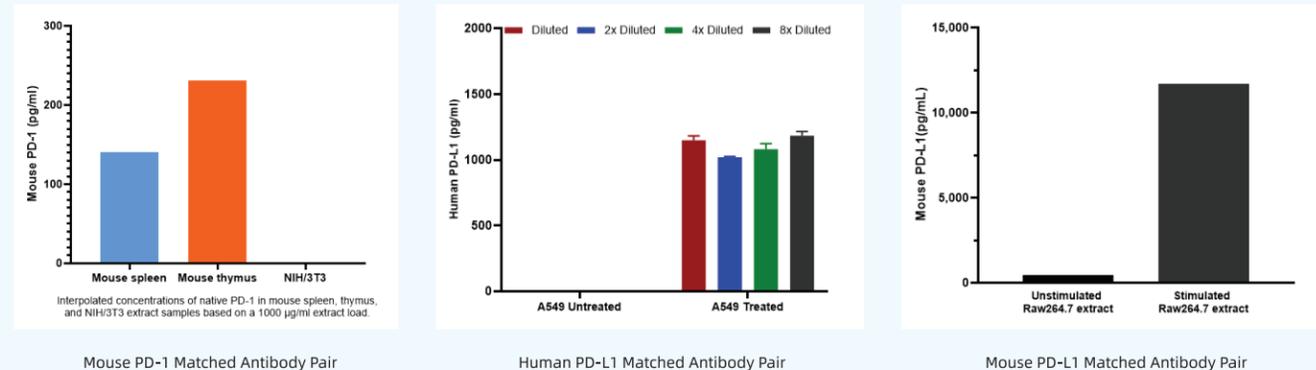
T细胞活化的关键共刺激信号。在抗原呈递细胞上表达，为T细胞完全活化提供“第二信号”。在代谢研究中，其表达上调是脂肪组织等代谢器官中免疫应答被激活的标志，是启动代谢性炎症的早期事件。



PD-1/PD-L1

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human PD-1	HA723521	ELISA(Cap)	15.6-2,000 pg/ml
Human PD-1	HA723522	ELISA(Det)	
Human PD-1 ELISA Kit	EH0062	ELISA	0.05 pg/ml (50 μ l); 1.64 pg/ml (10 μ l)
Mouse PD-1	HA722100	ELISA(Cap)	12.3-3,000 pg/ml
Mouse PD-1	HA722101	ELISA(Det)	
Mouse PD-1 ELISA Kit	EM0037	ELISA	7.65 pg/ml (10 μ l)
Human PD-L1	HA723740	ELISA(Cap)	7.8-2,000 pg/ml
Human PD-L1	HA723741	ELISA(Det)	
Human PD-L1 ELISA Kit	EH0048	ELISA	8.50 pg/ml (50 μ l); 26.02 pg/ml (10 μ l)
Mouse PD-L1	HA722189	ELISA(Cap)	6-1,500 pg/ml
Mouse PD-L1	HA722190	ELISA(Det)	
Mouse PD-L1 ELISA Kit	EM0036	ELISA	0.16 pg/ml (10 μ l)

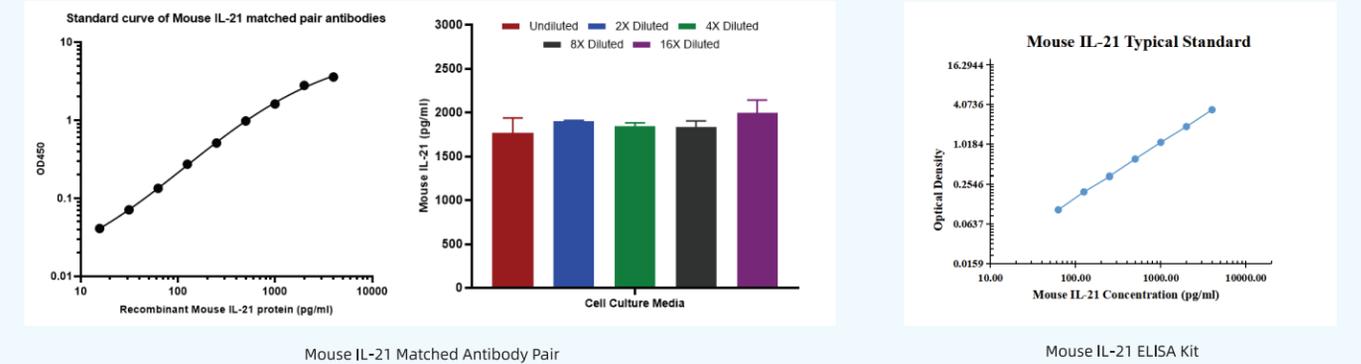
免疫检查点与代谢适应性的调节器。此通路在慢性代谢炎症环境中被诱导，旨在抑制过度免疫反应、维持耐受。然而，它也可能导致保护性T细胞耗竭，从而削弱组织修复能力，在糖尿病并发症及脂肪肝的进展中扮演复杂角色。



IL-21

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human IL-21	HA601195	ELISA(Cap)	31.5-2,000 pg/ml
Human IL-21	HA601196	ELISA(Det)	
Human IL-21 ELISA Kit	EH0018	ELISA	21.7 pg/ml (50 μ l); 67.9 pg/ml (10 μ l)
Mouse IL-21	HA723649	ELISA(Cap)	15.6-4,000 pg/ml
Mouse IL-21	HA723650	ELISA(Det)	
Mouse IL-21 ELISA Kit	EM0020	ELISA	3.22 pg/ml (10 μ l)

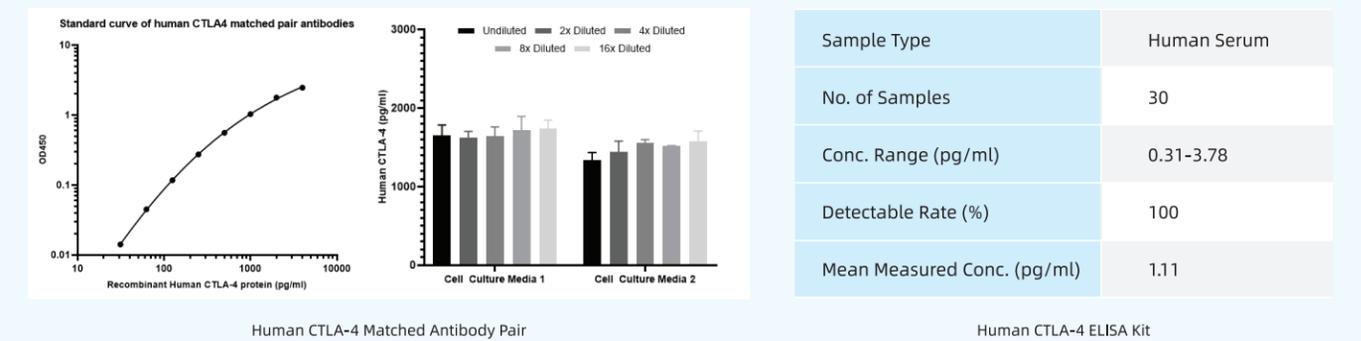
连接适应性免疫与代谢炎症的关键细胞因子。主要由活化的T细胞分泌，在肥胖环境下驱动脂肪组织、肝脏和胰腺中的慢性炎症状态，直接促进胰岛素抵抗和 β 细胞功能紊乱。



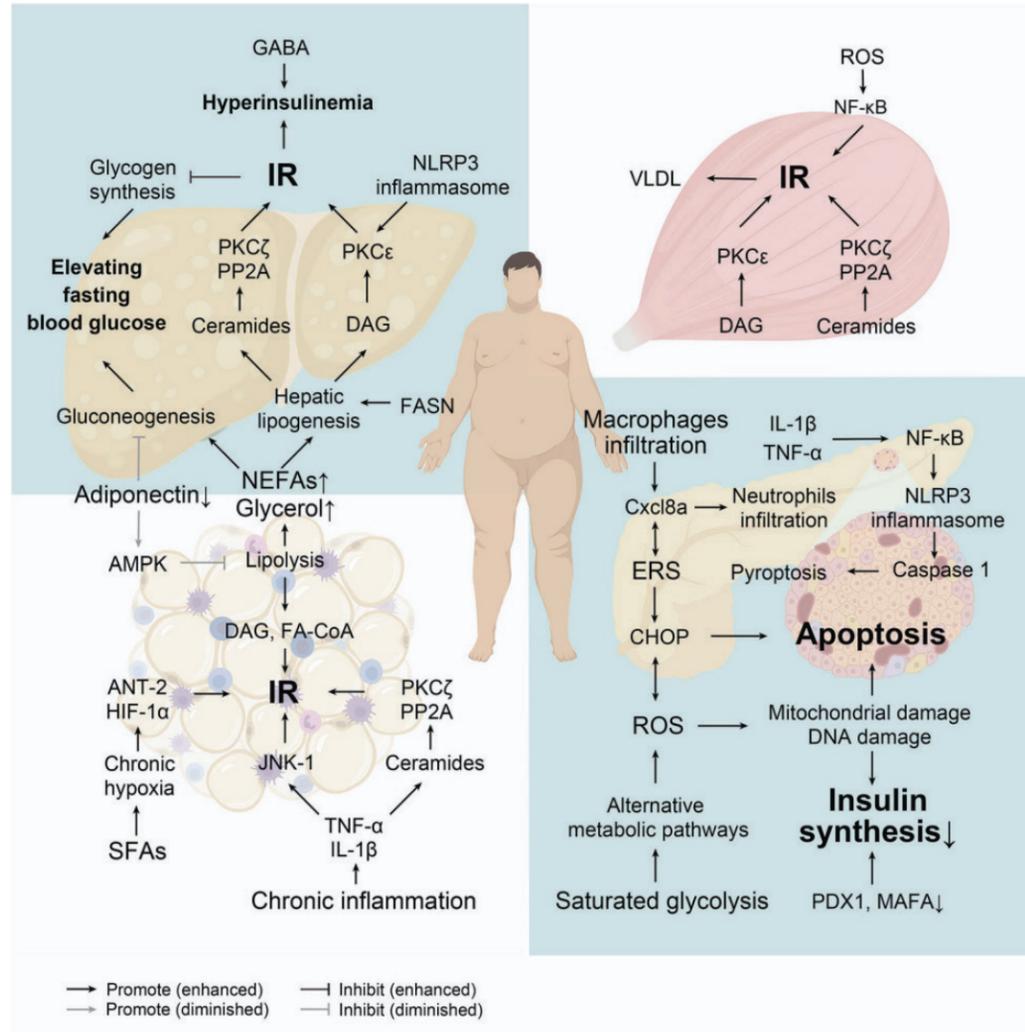
CTLA-4

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human CTLA-4	HA722954	ELISA(Cap)	8.2-2,000 pg/ml
Human CTLA-4	HA722955	ELISA(Det)	
Human CTLA-4 ELISA Kit	EH0179	ELISA	1.33 pg/ml (50 μ l); 1.97 pg/ml (10 μ l)

T细胞激活的强力负调控因子，通过与CD86竞争性结合，传递抑制性信号，是免疫应答的“刹车”。在代谢研究中，其功能对于维持免疫耐受、防止自身免疫性糖尿病至关重要，也是调节脂肪组织炎症状态的关键节点。



2型糖尿病以胰岛素抵抗伴相对胰岛素不足为主要特征。现代药物开发追求在有效控糖的同时，兼具心血管保护、减重和肾脏获益。



2型糖尿病病理机制示意图 (PMID: 39353925)

热门靶点概览

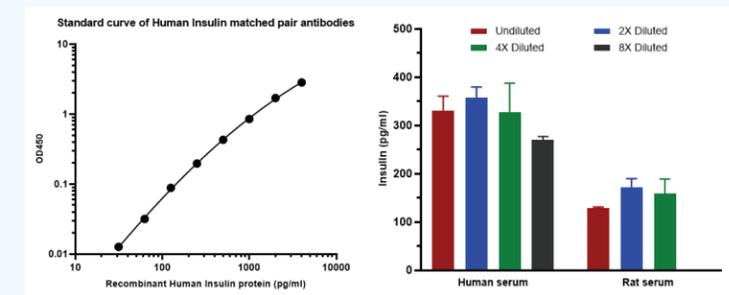
靶点类别	代表靶点	主要功能
糖代谢调控	GLP-1R, GIPR, SGLT2, DPP4, Insulin R, GCGR	调节肠促胰岛素效应、肾脏葡萄糖重吸收
胰岛素信号	Insulin R, AKT, GSK-3β	胰岛素信号通路核心节点，其功能障碍导致胰岛素抵抗
能量与代谢	FGF21, Adiponectin, THRβ, Leptin R, GDF-8, Activin A	增强能量消耗，改善胰岛素敏感性，调节肝脏脂肪代谢
炎症与脂质	PCSK9, ANGPTL3, TNF-α, IL-1β, NF-κB, APOC3, IGF1R, CTR	调控血脂水平，参与慢性炎症反应

验证数据精选

Insulin

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Insulin	HA722096	ELISA(Cap)	62.5-4,000 pg/ml
Insulin	HA722097	ELISA(Det)	
Mammal Insulin ELISA Kit	EH0038	ELISA	60.07 pg/ml (50 μl); 314.56 pg/ml (10 μl)

核心合成代谢激素。通过激活胰岛素受体信号通路，主导餐后葡萄糖的摄取、利用与储存，并抑制糖异生和脂解作用。胰岛素信号通路的任何缺陷都是2型糖尿病发病的根本原因。



Insulin Matched Antibody Pair

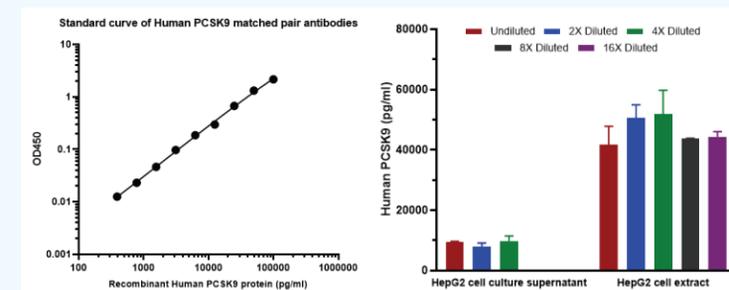
Sample Type	Human Serum
No. of Samples	30
Conc. Range (pg/ml)	132.03-2,758.63
Detectable Rate (%)	100
Mean Measured Conc. (pg/ml)	1,027.08

Mammal Insulin ELISA Kit

PCSK9

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human PCSK9	HA725124	ELISA(Cap)	781.3-100,000 pg/ml
Human PCSK9	HA725125	ELISA(Det)	
Human PCSK9 ELISA Kit	EH0071	ELISA	0.02 ng/ml (50 μl); 0.17 ng/ml (10 μl)
Human PCSK9 ELISA Kit (One step)	EHY0071	ELISA	0.39 ng/ml (50 μl); 0.73 ng/ml (10 μl)

胆固醇代谢调控者。通过降解肝细胞LDL受体调节血浆LDL-C水平。新研究发现其也参与肝细胞损伤、炎症和脂肪变性过程，与脂肪肝的严重程度相关。其功能亢进是导致家族性高胆固醇血症及动脉粥样硬化性心血管疾病的关键机制，抑制PCSK9已成为降脂治疗的重要策略。



Human PCSK9 Matched Antibody Pair

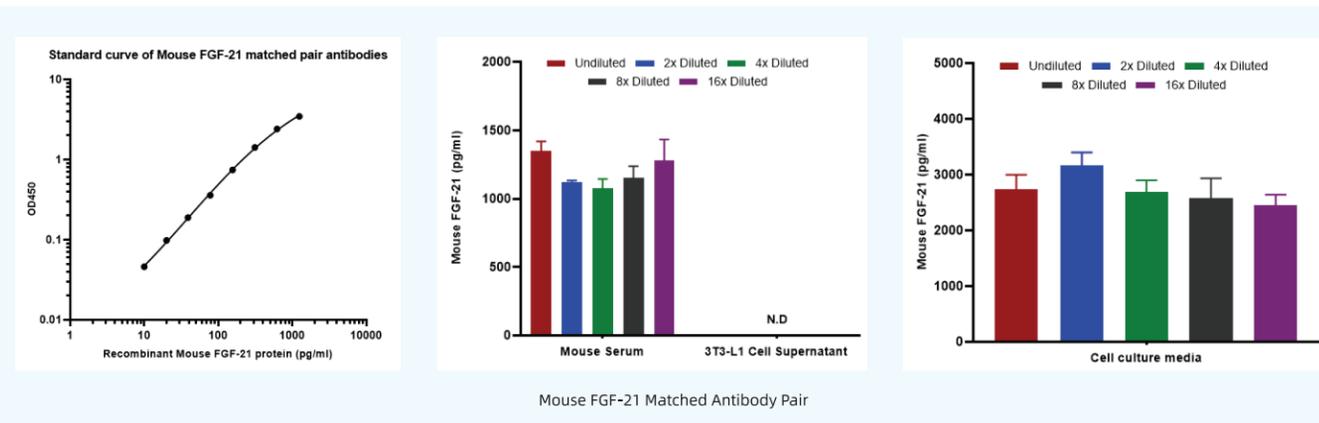
Sample Type	Human Serum
No. of Samples	30
Conc. Range (pg/ml)	609.35-1,634.60
Detectable Rate (%)	100
Mean Measured Conc. (pg/ml)	1,146.64

Human PCSK9 ELISA Kit (One step)

FGF-21

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Mouse FGF-21	HA723731	ELISA(Cap)	9.8-2,500 pg/ml
Mouse FGF-21	HA723732	ELISA(Det)	

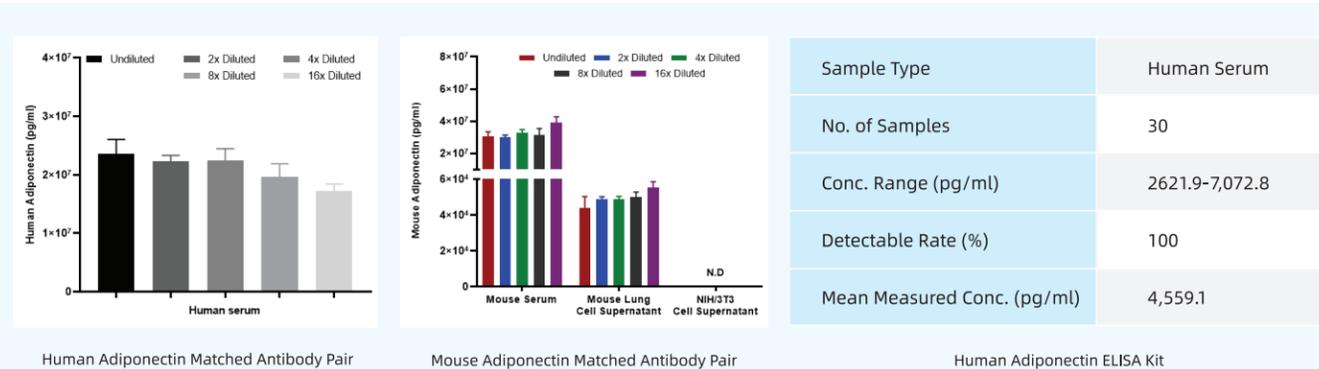
由肝脏和脂肪响应代谢压力产生，强力促进葡萄糖摄取、脂质分解和酮体生成，是机体应对饥饿和代谢挑战的适应性激素，是治疗NASH和肥胖的明星靶点。



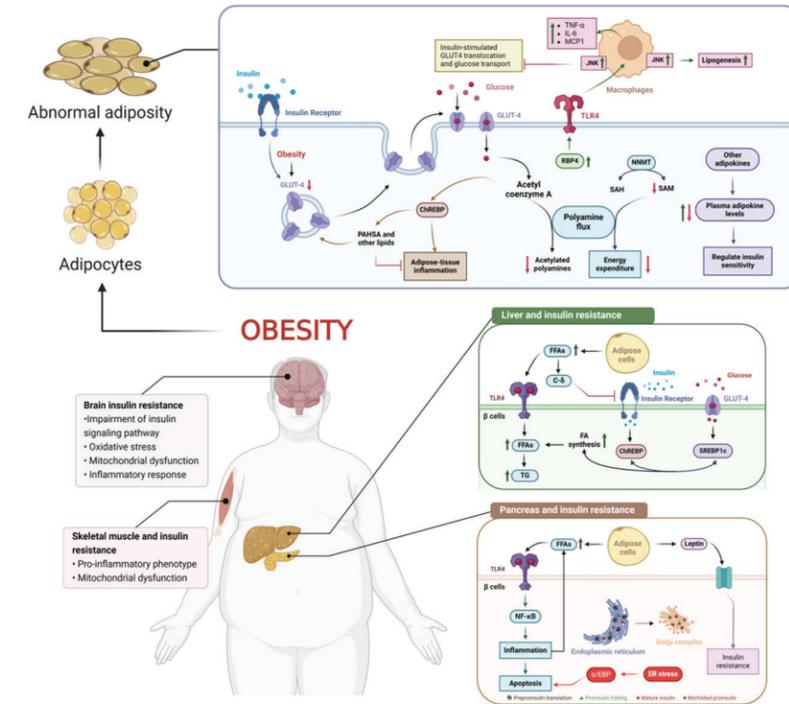
Adiponectin

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human Adiponectin	HA722260	ELISA(Cap)	61.7-5,000 pg/ml
Human Adiponectin	HA722261	ELISA(Det)	
Mouse Adiponectin	HA723679	ELISA(Cap)	15.6-4,000 pg/ml
Mouse Adiponectin	HA723680	ELISA(Det)	
Human Adiponectin ELISA Kit	EH0099	ELISA	0.15 pg/ml (50 μ l); 3.56 pg/ml (10 μ l)

胰岛素增敏与抗炎脂肪因子。由健康脂肪组织分泌，能增强肝脏和肌肉的胰岛素敏感性，促进脂肪酸氧化并抑制肝脏葡萄糖输出。其在肥胖个体中的水平下降是导致胰岛素抵抗和代谢综合征的重要原因。



肥胖是能量摄入超过消耗导致的慢性疾病，涉及中枢食欲调控和外周能量代谢异常。药物开发旨在安全有效地减少能量摄入和/或增加能量消耗。



肥胖导致的胰岛素抵抗机制示意图 (PMID: 40687905)

热门靶点概览

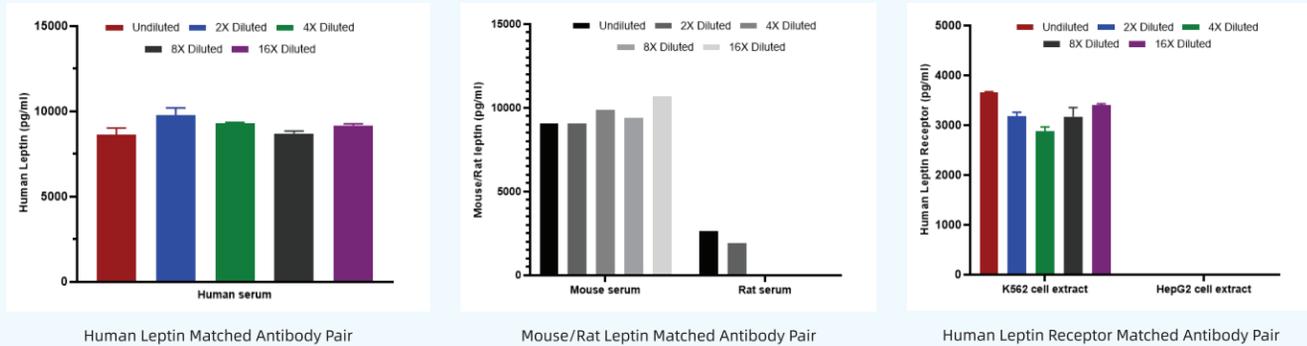
靶点类别	代表靶点	主要功能
食欲调控	GLP-1R, GIPR, MC4R, GDF15, GFRAL, CNR1, 5-HT2AR, Leptin R, CNTFR	增强饱腹信号，诱导厌食反应，抑制摄食中枢
能量消耗	GCGR, THR β , FGF21, GDF8, Activin A通路, FGF R1/4, GLP2R, INSR	促进肝脏生热作用、脂肪酸氧化与能量消耗
脂肪代谢	Leptin R, CNR1, LDLR, LPL, AMY3R, CTR	反馈能量储存状态，调节脂质合成与分解
免疫代谢	TREM2, IL-1 β , TNF- α , IL-6, IL-6 R α / β , TGF-beta 1	调控脂肪组织巨噬细胞功能，驱动慢性炎症

验证数据精选

Leptin/Leptin R

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human Leptin	HA723421	ELISA(Cap)	15.6-2,000 pg/ml
Human Leptin	HA723422	ELISA(Det)	
Human Leptin ELISA Kit	EH0056	ELISA	9.45 pg/ml (50 μ l); 18.83 pg/ml (10 μ l)
Mouse/Rat Leptin	HA723046	ELISA(Cap)	31-4,000 pg/ml
Mouse/Rat Leptin	HA723047	ELISA(Det)	
Mouse Leptin ELISA Kit	EM0027	ELISA	19.30 pg/ml (50 μ l)
Human Leptin Receptor	HA725058	ELISA(Cap)	156-20,000 pg/ml
Human Leptin Receptor	HA725059	ELISA(Det)	

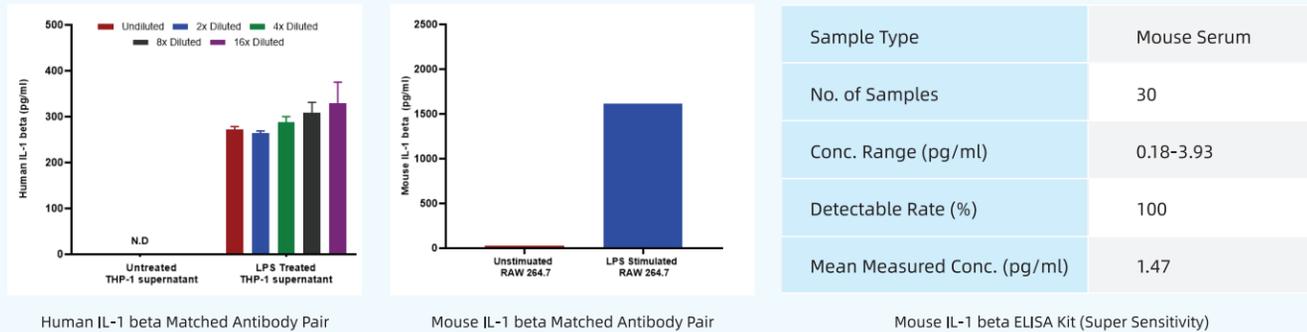
中枢能量平衡调节器。Leptin由脂肪细胞分泌，通过下丘脑受体反馈机体能量储存状态，抑制食欲并增加能耗。肥胖患者普遍存在Leptin抵抗，导致这一负反馈环路失效，是肥胖发生和维持的核心机制。瘦素受体是连接营养状态与中枢能量调控的核心桥梁。它介导脂肪细胞来源的瘦素信号至下丘脑，调控食欲与能量消耗。



IL-1 beta

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human IL-1 beta	HA723881	ELISA(Cap)	3.9-1,000 pg/ml
Human IL-1 beta	HA723882	ELISA(Det)	
Human IL-1 β ELISA Kit	EH0006	ELISA	0.77 pg/ml (10 μ l)
Mouse IL-1 beta	HA721976	ELISA(Cap)	37-3,000 pg/ml
Mouse IL-1 beta	HA721977	ELISA(Det)	
Mouse IL-1 β ELISA Kit (Super Sensitivity)	EM550029	ELISA	0.12 pg/ml (50 μ l); 0.36 pg/ml (10 μ l)
Rat IL-1 beta	HA721836	ELISA(Cap)	30.9-2,500 pg/ml
Rat IL-1 beta	HA721837	ELISA(Det)	
Rat IL-1 β ELISA Kit	ER0001	ELISA	17.11 pg/ml (50 μ l)

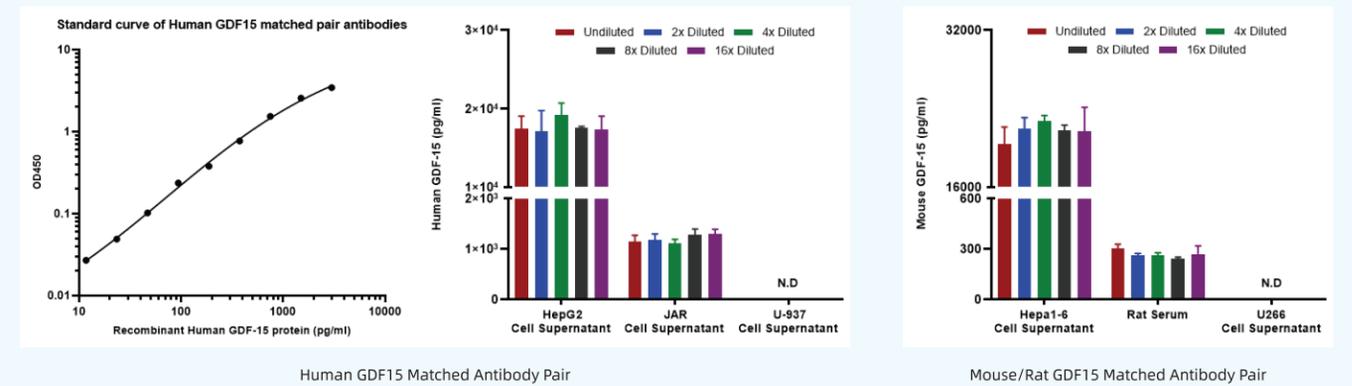
经典的促炎细胞因子，代谢炎症的核心驱动力。由NLRP3炎症小体等途径激活，直接攻击胰岛素信号通路，导致全身性胰岛素抵抗，并破坏胰岛 β 细胞功能，是2型糖尿病发病机制中的核心炎症介质。



GDF15

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human GDF15	HA723805	ELISA(Cap)	11.7-3,000 pg/ml
Human GDF15	HA723806	ELISA(Det)	
Human GDF15	HA723807	ELISA(Det)	7.8-1,000 pg/ml
Mouse/Rat GDF15	HA723866	ELISA(Cap)	
Mouse/Rat GDF15	HA723867	ELISA(Det)	

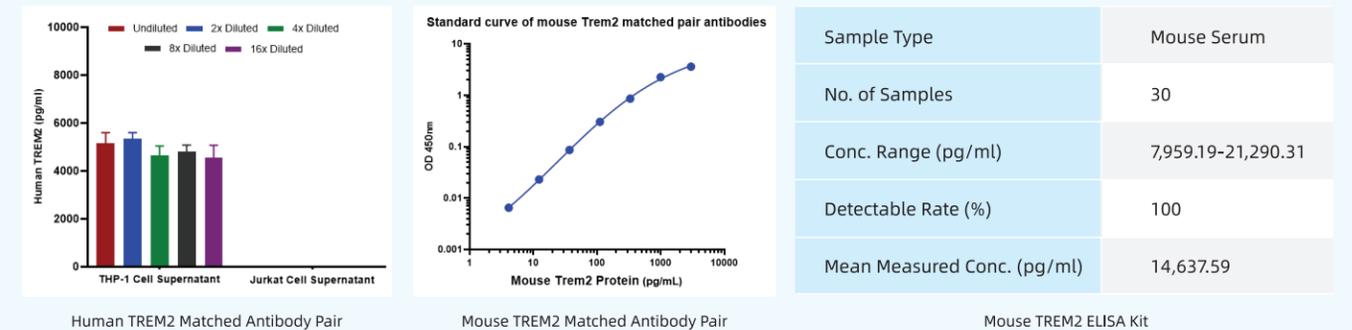
GDF15在细胞应激和组织损伤时释放，通过大脑特定区域介导厌食、恶心反应并增加能量消耗，是机体在病理状态下的一种保护性反应。其在肥胖、癌症和心肌病中的水平显著升高。



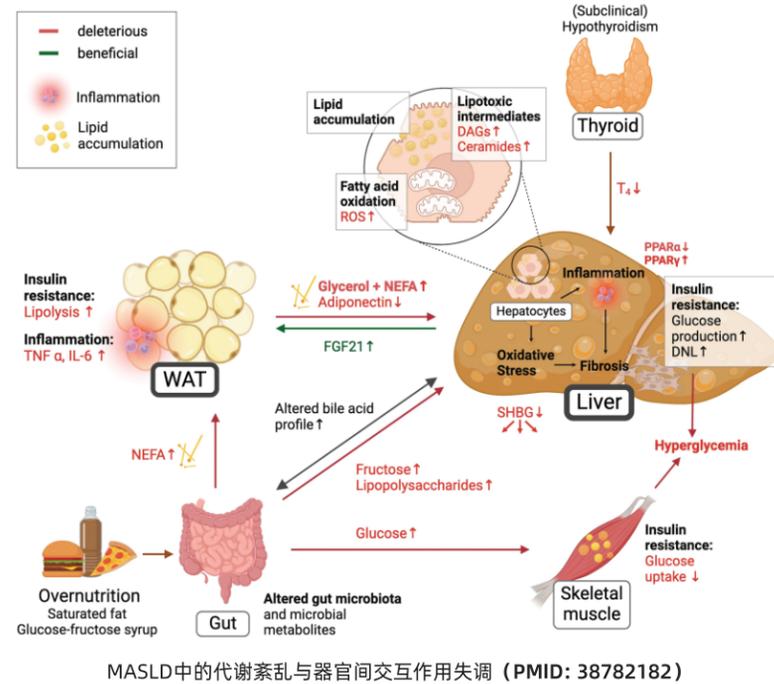
TREM2

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human TREM2	HA723149	ELISA(Cap)	39-5,000 pg/ml
Human TREM2	HA723151	ELISA(Det)	
Human TREM2 ELISA Kit	EHY0122 (One Step)	ELISA	0.004 ng/ml (50 μ l); 0.05 ng/ml (10 μ l)
Mouse TREM2	HA721760	ELISA(Cap)	37-3,000 pg/ml
Mouse TREM2	HA721761	ELISA(Det)	
Mouse TREM2 ELISA Kit	EM0039	ELISA	0.60 pg/ml (10 μ l)

代谢器官中的“清道夫”受体。在脂肪肝中，TREM2在脂质负荷过重的巨噬细胞上高表达，促进死亡肝细胞清除、抑制炎症并驱动组织修复性纤维化，是决定非酒精性脂肪肝向肝炎或纤维化转归的关键节点。



MAFLD/MASH是一个进行性肝病谱系，发病机制复杂，涉及脂质代谢紊乱、胰岛素抵抗、氧化应激、肠-肝轴失衡以及免疫炎症反应等多重通路。从肝脂肪变性到肝炎、纤维化，最终可导致肝硬化肝癌。其**发病机制复杂，涉及“多重打击”学说**。



热门靶点概览

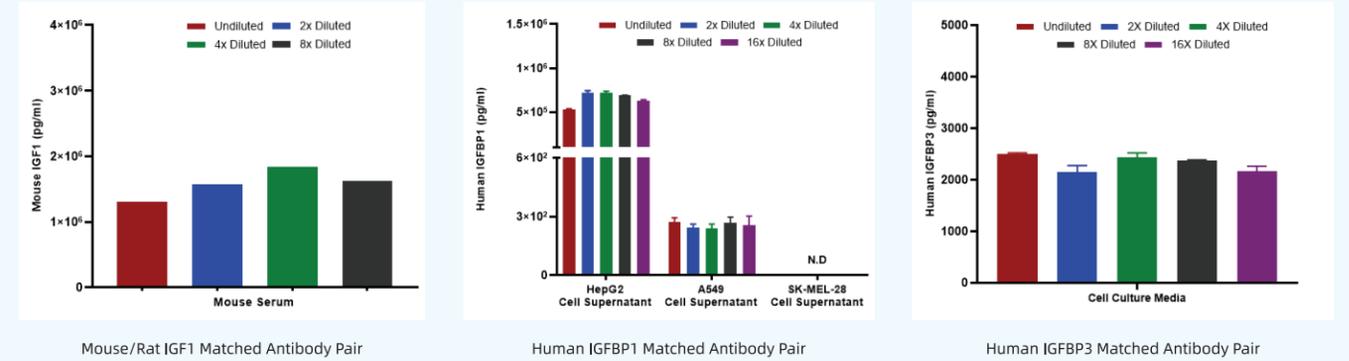
靶点类别	代表靶点	主要功能
代谢紊乱	GLP-1R, THRβ, FGF19/21, PCSK9, IGF-1, EGFR, CD36, DPP4, INSR, CB1	改善肝脏胰岛素抵抗，调节脂质合成与清除
炎症反应	TNF-α, IL-17A, Caspase-1, IL1β, IL22, CCL2/CCR2, CCL5/CCR5, TNFSF15, ICAM-1	驱动肝细胞损伤、炎症小体激活及炎症因子释放
纤维化进程	TGF-β, LOXL2, Integrin αVβ1, CTR, PDGF R, FGF2	激活肝星状细胞，促进细胞外基质沉积与纤维化
新兴治疗靶点	FGF21, FGF19, IL11RA, AMY3R, ENPP2, Galectin-3, HGF R	降低肝脏脂肪含量、改善肝酶指标，甚至逆转纤维化

验证数据精选

IGF-I / IGFBP

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Mouse/Rat IGF1	HA725037	ELISA(Cap)	781-50,000 pg/ml
Mouse/Rat IGF1	HA725038	ELISA(Det)	
Mouse/Rat IGF1 ELISA Kit	EM0024	ELISA	1.76 pg/ml (50 μl); 3.43 pg/ml (10 μl)
Human IGFBP1	HA723931	ELISA(Cap)	9.8-2,500 pg/ml
Human IGFBP1	HA723932	ELISA(Det)	
Human IGFBP3	HA723432	ELISA(Cap)	31.5-4,000 pg/ml
Human IGFBP3	HA723433	ELISA(Det)	

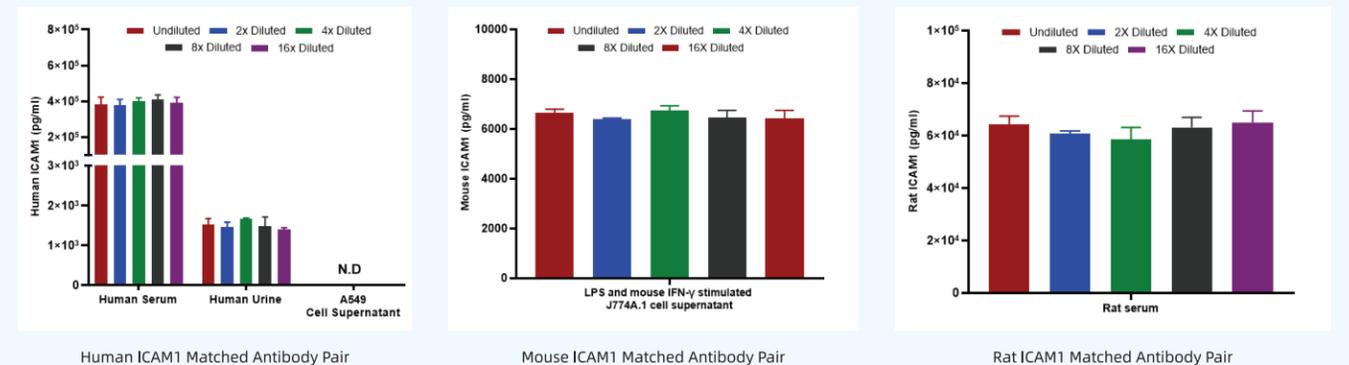
生长与代谢的整合者。IGF-I介导生长激素的合成代谢作用，具有类胰岛素活性。它不仅介导生长激素的合成代谢作用，更能通过增强胰岛素敏感性、促进葡萄糖利用和抑制糖异生，在改善胰岛素抵抗中扮演关键角色。IGFBP通过调控其生物利用度，精细调节着细胞增殖、分化与葡萄糖代谢之间的平衡。



ICAM-1

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human ICAM1	HA723184	ELISA(Cap)	31-4,000 pg/ml
Human ICAM1	HA723185	ELISA(Det)	
Human ICAM1 ELISA Kit	EH0064	ELISA	0.49 pg/ml(50 μl); 6.36 pg/ml (10 μl)
Human ICAM1 ELISA Kit (One step)	EHY0064	ELISA	1.22 pg/ml (50 μl); 0.05 ng/ml (10 μl)
Mouse ICAM1	HA723832	ELISA(Cap)	31.3-4,000 pg/ml
Mouse ICAM1	HA723833	ELISA(Det)	
Rat ICAM1	HA723926	ELISA(Cap)	31.3-4,000 pg/ml
Rat ICAM1	HA723927	ELISA(Det)	

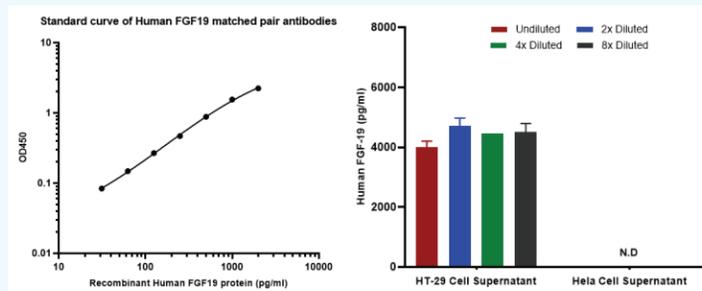
作为细胞粘附分子，ICAM-1在炎症刺激下，于血管内皮细胞等表面高表达，介导免疫细胞向脂肪、肝脏等代谢组织的黏附与迁移，是放大和维持局部炎症的关键粘附分子。



FGF19

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human FGF-19	HA725100	ELISA(Cap)	31.2-2,000 pg/ml
Human FGF-19	HA725101	ELISA(Det)	
Human FGF-19 ELISA Kit	EH0140	ELISA	0.48 pg/ml (50 µl); 4.11 pg/ml (10 µl)

肠道 - 肝脏轴的核心代谢激素。响应进食后胆汁酸信号由回肠分泌，作用于肝脏，抑制胆汁酸合成和糖异生，同时促进蛋白质合成与能量消耗。它是协调餐后代谢适应、维持代谢稳态的关键因子，是NASH/NAFLD治疗的重要靶点。



Human FGF-19 Matched Antibody Pair

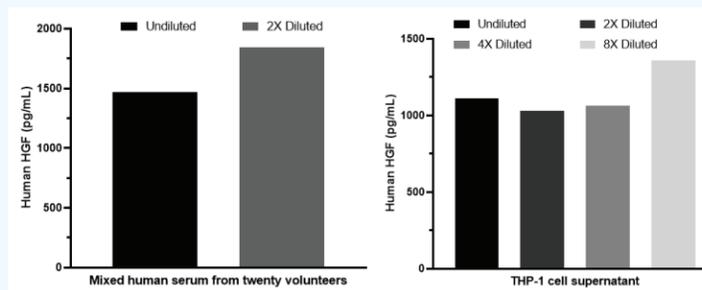
Sample Type	Human Serum
No. of Samples	30
Conc. Range (pg/ml)	19.81-294.45
Detectable Rate (%)	100
Mean Measured Conc. (pg/ml)	91.01

Human FGF-19 ELISA Kit

HGF

Product name	Catalog#	Tested applications	Assay range / Sensitivity
Human HGF	HA721778	ELISA(Cap)	12.35-3,000 pg/ml
Human HGF	HA721779	ELISA(Det)	
Human HGF	HA722042	ELISA(Cap)	61.7-5,000 pg/ml
Human HGF	HA722043	ELISA(Det)	
Human HGF ELISA Kit	EH0019	ELISA	4.07 pg/ml (50 µl) ; 6.01 pg/ml (10 µl)

肝细胞生长因子在代谢中扮演双重角色。它通过促进组织修复、改善胰岛素敏感性及抑制肝星状细胞活化，在非酒精性脂肪性肝病的改善中发挥保护作用；然而，其异常高表达也可能与肥胖相关的病理性血管生成及胰岛素抵抗相关联。



Human HGF Matched Antibody Pair

Sample Type	Human Serum
No. of Samples	30
Conc. Range (pg/ml)	360.14-1,072.52
Detectable Rate (%)	100
Mean Measured Conc. (pg/ml)	609.53

Human HGF ELISA Kit

热门产品推荐

重组蛋白 — 加速靶点验证与筛选

我们提供的高纯度、高生物活性重组蛋白（如PCSK9, FGF19, FGF21等），是药物发现阶段的“黄金标准”工具。

- 01 严格质控：**纯度 >95%（SEC-HPLC/SDS-PAGE验证），内毒素 <1.0 EU/µg。
- 02 功能验证：**关键蛋白，提供细胞水平生物活性数据（典型EC50范围）。
- 03 成功经验：**拥有2000+ 成功交付案例，涵盖多种全长跨膜蛋、多亚基复合物等困难靶点。

优质产品推荐

Diabetes			Diabetes		
Product name	Catalog#	Source	Product name	Catalog#	Source
Human Adiponectin/Acrp30, Tag Free	HA210935	HEK293	Mouse IL-6, Tag Free	HA210796	HEK293
Human ANGPTL3/Angiopoietin-like 3, Tag Free	HA211029	HEK293	Mouse PCSK9, Tag Free	HA211202	HEK293
Human APOC3, Tag Free	HA211274	HEK293	Mouse TNF-alpha, Tag Free	HA211054	HEK293
Human B7-1/CD80, Tag Free	HA210994	HEK293	Mouse TNF-alpha, Tag Free	HA211054	HEK293
Human CD40 Ligand/TNFSF5, Tag Free (ECD)	HA210939	HEK293	Mouse TSLP, Tag Free	HA211088	HEK293
Human IFN-gamma, Tag Free	HA211129	HEK293	Mouse VEGF164, Tag Free	HA210780	HEK293
Human IL-17A, Tag Free	HA210731	HEK293	Mouse VEGF188, Tag Free	HA210770	HEK293
Human IL-21, Tag Free	HA211070	HEK293	Rat IL-1 alpha/IL1A, Tag Free	HA211058	HEK293
Human IL-2R alpha, Tag Free	HA210771	HEK293	Rat VEGF164, Tag Free	HA211331	HEK293
Human IL-6, Tag Free	HA210797	HEK293	Rat VEGF188, Tag Free	HA211332	HEK293
Human LTA, Tag Free	HA210742	HEK293			
Human TNF-alpha, Tag Free	HA210760	HEK293	Obesity		
Human TNF-alpha, Tag Free	HA210760	HEK293	Product name	Catalog#	Source
Human VEGF121, Tag Free	HA210929	HEK293	Human IL-6, Tag Free	HA210797	HEK293
Human VEGF165, Tag Free	HA210784	HEK293	Human LDLR/LDL Receptor, Tag Free	HA211287	HEK293
Mouse APOC3, Tag Free	HA211230	HEK293	Human TNF-alpha, Tag Free	HA210760	HEK293
Mouse CD25/IL-2R alpha, Tag Free	HA211117	HEK293	Human TREM2, Tag Free	HA211052	HEK293
Mouse CD28, Tag Free	HA211340	HEK293	Human VEGF121, Tag Free	HA210929	HEK293
Mouse FGF-21, Tag Free	HA211166	HEK293	Human VEGF165, Tag Free	HA210784	HEK293
Mouse IFN-gamma, Tag Free	HA210974	HEK293	Human VEGFR2/KDR, Tag Free (ECD)	HA211025	HEK293
Mouse IL-21, Tag Free	HA210801	HEK293	Mouse FGF-21, Tag Free	HA211166	HEK293
			Mouse GDF-15, Tag Free	HA211089	HEK293

Obesity			MAFLD		
Product name	Catalog#	Source	Product name	Catalog#	Source
Mouse GDF-15, Tag Free	HA211089	HEK293	Human LDLR/LDL Receptor, Tag Free	HA210834	E.coli
Mouse IL-6, Tag Free	HA210796	HEK293	Human TL1A/TNFSF15, Tag Free	HA210981	HEK293
Mouse TNF-alpha, Tag Free	HA211054	HEK293	Human TNF-alpha, Tag Free	HA210866	HEK293
Mouse TREM2, Tag Free (ECD)	HA211061	HEK293	Mouse CCL2, Tag Free	HA210731	HEK293
Mouse VEGF164, Tag Free	HA210780	HEK293	Mouse FGF-21, Tag Free	HA211287	HEK293
Mouse VEGF188, Tag Free	HA210770	HEK293	Mouse PCSK9, Tag Free	HA211266	HEK293
Rat VEGF164, Tag Free	HA211331	HEK293	Mouse TNF-alpha, Tag Free	HA210760	HEK293
Rat VEGF188, Tag Free	HA211332	HEK293	Rat CCL2/MCP-1, Tag Free	HA210775	HEK293
MAFLD			Human FGF Basic/FGF2, Tag Free	HA211166	HEK293
Product name	Catalog#	Source	Human FGF19, Tag Free	HA211202	HEK293
Human CCL2/MCP1, Tag Free	HA210787	E.coli	Human IGF1, Tag Free	HA211054	HEK293
Human CCL5/RANTES, Tag Free	HA210998	HEK293	Human IL-17A, Tag Free	HA211114	HEK293



扫码了解更多
代谢性疾病研究相关
“糖尿病靶点蛋白”产品信息



扫码了解更多
代谢性疾病研究相关
“肥胖症靶点蛋白”产品信息



扫码了解更多
代谢性疾病研究相关
“代谢相关脂肪性肝病”产品信息

此外，我们还提供重组蛋白表达服务，通过优化表达平台与规模化纯化流程，显著缩短蛋白交付时间，助您加速从靶点验证到先导化合物筛选的决策流程，致力于将复杂的生物学靶点转化为稳定、可靠、数据驱动的研发工具。

真核蛋白表达服务详情

核心优势

表达体系精准优化

高效瞬时表达平台

严格的纯度标准：交付蛋白纯度均高于90%

15年以上丰富的项目经验

无动物源培养体系

卓越的表达量与成功率

高性价比与快速交付(平均4周的稳定交付周期)

成功交付2000+ 重组蛋白项目，涵盖各类困难靶点

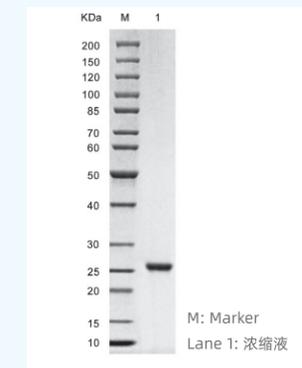
工作流程



重组蛋白定制服务案例

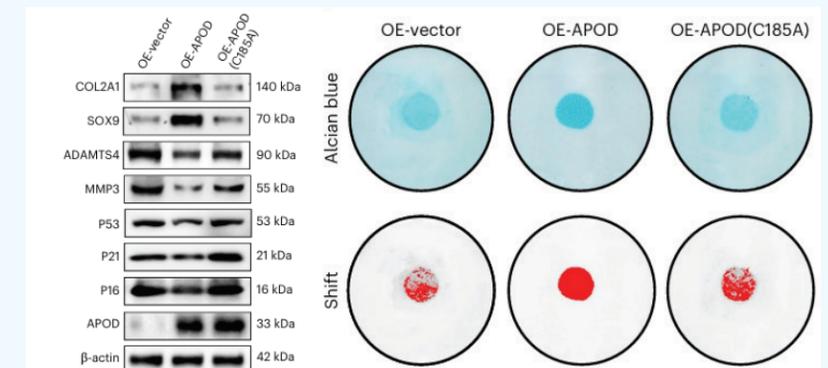
APOD蛋白表达与纯化

纯度：≥90% as estimated by SDS-PAGE gel



原代软骨细胞中过表达APOD，评估其对衰老介导的骨关节炎进程的调控作用

APOD过表达改善骨关节炎和衰老相关表型，减缓细胞衰老；而APOD(C185A)过表达则产生相反效应。



*数据来源: Nat Aging. 2025 Sep 30. doi: 10.1038/s43587-025-00968-1. (浙江大学)

配对抗体 — 实现精准定量

针对胰岛素信号通路、炎症与代谢标志物，提供经ELISA/MSD平台验证的高亲和力、高特异性配对抗体，确保检测的准确性与可重复性。

优质产品推荐

Product name	Catalog#	Applications	Antibody type	Product name	Catalog#	Applications	Antibody type
Human Adiponectin	HA722260	ELISA(Cap)	Recombinant Rabbit mAb	Human CD28	HA723457	ELISA(Cap)	Recombinant Rabbit mAb
Human Adiponectin	HA722261	ELISA(Det)	Recombinant Rabbit mAb	Human CD28	HA723458	ELISA(Det)	Recombinant Rabbit mAb
Human ANGPTL3	HA725079	ELISA(Cap)	Recombinant Rabbit mAb	Human CD80	HA723123	ELISA(Cap)	Recombinant Rabbit mAb
Human ANGPTL3	HA725080	ELISA(Det)	Recombinant Rabbit mAb	Human CD80	HA723124	ELISA(Det)	Recombinant Rabbit mAb
Human CCL2 / MCP-1	HA725195	ELISA(Cap)	Recombinant Rabbit mAb	Human CD80	HA723125	ELISA(Det)	Recombinant Rabbit mAb
Human CCL2 / MCP-1	HA725196	ELISA(Det)	Recombinant Rabbit mAb	Human CTLA-4	HA722954	ELISA(Cap)	Recombinant Rabbit mAb
Human CCL5	HA725055	ELISA(Cap)	Recombinant Rabbit mAb	Human CTLA-4	HA722955	ELISA(Det)	Recombinant Rabbit mAb
Human CCL5	HA725056	ELISA(Det)	Recombinant Rabbit mAb	Human FGF-19	HA725100	ELISA(Cap)	Recombinant Rabbit mAb

Product name	Catalog#	Applications	Antibody type
Human FGF-19	HA725101	ELISA(Det)	Recombinant Rabbit mAb
Human FGF-2	HA721780	ELISA(Cap)	Recombinant Rabbit mAb
Human FGF-2	HA721781	ELISA(Det)	Recombinant Rabbit mAb
Human GDF-15	HA723805	ELISA(Cap)	Recombinant Rabbit mAb
Human GDF-15	HA723806	ELISA(Det)	Recombinant Rabbit mAb
Human GDF-15	HA723807	ELISA(Det)	Recombinant Rabbit mAb
Human ICAM1	HA723184	ELISA(Cap)	Recombinant Rabbit mAb
Human ICAM1	HA723185	ELISA(Det)	Recombinant Rabbit mAb
Human IL-1 beta	HA723881	ELISA(Cap)	Recombinant Rabbit mAb
Human IL-1 beta	HA723882	ELISA(Det)	Recombinant Rabbit mAb
Human IL-12B p40	HA721834	ELISA(Cap)	Recombinant Rabbit mAb
Human IL-12B p40	HA721835	ELISA(Det)	Recombinant Rabbit mAb
Human IL-17A	HA721232	ELISA(Cap)	Recombinant Rabbit mAb
Human IL-17A	HA721233	ELISA(Det)	Recombinant Rabbit mAb
Human IL-2 Receptor alpha	HA722385	ELISA(Cap)	Recombinant Rabbit mAb
Human IL-2 Receptor alpha	HA722386	ELISA(Det)	Recombinant Rabbit mAb
Human IL-21	HA601195	ELISA(Cap)	Recombinant Mouse mAb
Human IL-21	HA601196	ELISA(Det)	Recombinant Mouse mAb
Human IL-22	HA721939	ELISA(Cap)	Recombinant Rabbit mAb
Human IL-22	HA721940	ELISA(Det)	Recombinant Rabbit mAb
Human IL-6	HA721167	ELISA(Cap)	Recombinant Rabbit mAb
Human IL-6	HA721168	ELISA(Det)	Recombinant Rabbit mAb
Human IL-6R	HA723743	ELISA(Cap)	Recombinant Rabbit mAb
Human IL-6R	HA723744	ELISA(Det)	Recombinant Rabbit mAb
Human Interferon gamma	HA721684	ELISA(Cap)	Recombinant Rabbit mAb
Human Interferon gamma	HA721685	ELISA(Det)	Recombinant Rabbit mAb
Human Leptin Receptor	HA725058	ELISA(Cap)	Recombinant Rabbit mAb
Human Leptin Receptor	HA725059	ELISA(Det)	Recombinant Rabbit mAb
Human PCSK9	HA725124	ELISA(Cap)	Recombinant Rabbit mAb
Human PCSK9	HA725125	ELISA(Det)	Recombinant Rabbit mAb
Human PD1	HA723521	ELISA(Cap)	Recombinant Rabbit mAb
Human PD1	HA723522	ELISA(Det)	Recombinant Rabbit mAb
Human PD-L1	HA723740	ELISA(Cap)	Recombinant Rabbit mAb

Product name	Catalog#	Applications	Antibody type
Human PD-L1	HA723741	ELISA(Det)	Recombinant Rabbit mAb
Human TNF alpha	HA721265	ELISA(Cap)	Recombinant Rabbit mAb
Human TNF alpha	HA721266	ELISA(Det)	Recombinant Rabbit mAb
Human TNF Receptor II	HA723402	ELISA(Cap)	Recombinant Rabbit mAb
Human TNF Receptor II	HA723403	ELISA(Det)	Recombinant Rabbit mAb
Human TNF-beta	HA721242	ELISA(Cap)	Recombinant Rabbit mAb
Human TNF-beta	HA721243	ELISA(Det)	Recombinant Rabbit mAb
Human TREM2	HA723149	ELISA(Cap), ELISA(Det)	Recombinant Rabbit mAb
Human TREM2	HA723150	ELISA(Cap)	Recombinant Rabbit mAb
Human TREM2	HA723151	ELISA(Det)	Recombinant Rabbit mAb
Human TSLP	HA723490	ELISA(Cap)	Recombinant Rabbit mAb
Human TSLP	HA723491	ELISA(Det)	Recombinant Rabbit mAb
Human VEGF Receptor 2	HA725121	ELISA(Cap)	Recombinant Rabbit mAb
Human VEGF Receptor 2	HA725122	ELISA(Det)	Recombinant Rabbit mAb
Human VEGFA	HA723493	ELISA(Cap)	Recombinant Rabbit mAb
Human VEGFA	HA723494	ELISA(Det)	Recombinant Rabbit mAb
Mouse CCL2 / MCP-1	HA725040	ELISA(Cap)	Recombinant Rabbit mAb
Mouse CCL2 / MCP-1	HA725041	ELISA(Det)	Recombinant Rabbit mAb
Mouse CCL5/RANTES	HA725046	ELISA(Cap)	Recombinant Rabbit mAb
Mouse CCL5/RANTES	HA725047	ELISA(Det)	Recombinant Rabbit mAb
Mouse CD86	HA723555	ELISA(Cap)	Recombinant Rabbit mAb
Mouse CD86	HA723556	ELISA(Det)	Recombinant Rabbit mAb
Mouse FGF-21	HA723731	ELISA(Cap)	Recombinant Rabbit mAb
Mouse FGF-21	HA723732	ELISA(Det)	Recombinant Rabbit mAb
Mouse ICAM1	HA723832	ELISA(Cap)	Recombinant Rabbit mAb
Mouse ICAM1	HA723833	ELISA(Det)	Recombinant Rabbit mAb
Mouse IFN gamma	HA723676	ELISA(Cap)	Recombinant Rabbit mAb
Mouse IFN gamma	HA723677	ELISA(Det)	Recombinant Rabbit mAb
Mouse IL-1 alpha	HA723529	ELISA(Cap)	Recombinant Rabbit mAb
Mouse IL-1 alpha	HA723530	ELISA(Det)	Recombinant Rabbit mAb
Mouse IL-1 beta	HA722166	ELISA(Cap)	Recombinant Rabbit mAb
Mouse IL-1 beta	HA722167	ELISA(Det)	Recombinant Rabbit mAb
Mouse IL12 p40	HA722193	ELISA(Cap)	Recombinant Rabbit mAb

Product name	Catalog#	Applications	Antibody type
Mouse IL12 p40	HA722194	ELISA(Det)	Recombinant Rabbit mAb
Mouse IL-17A	HA722264	ELISA(Cap)	Recombinant Rabbit mAb
Mouse IL-17A	HA722265	ELISA(Det)	Recombinant Rabbit mAb
Mouse IL-21	HA723650	ELISA(Det)	Recombinant Rabbit mAb
Mouse IL-21	HA723652	ELISA(Det)	Recombinant Rabbit mAb
Mouse IL-22	HA725031	ELISA(Cap)	Recombinant Rabbit mAb
Mouse IL-22	HA725032	ELISA(Det)	Recombinant Rabbit mAb
Mouse IL-6	HA721600	ELISA(Cap), ELISA(Det)	Recombinant Rabbit mAb
Mouse IL-6	HA721601	ELISA(Det)	Recombinant Rabbit mAb
Mouse PD1	HA722100	ELISA(Cap)	Recombinant Rabbit mAb
Mouse PD1	HA722101	ELISA(Det)	Recombinant Rabbit mAb
Mouse PD-L1	HA722189	ELISA(Cap)	Recombinant Rabbit mAb
Mouse PD-L1	HA722190	ELISA(Det)	Recombinant Rabbit mAb
Mouse TNF alpha	HA722040	ELISA(Cap)	Recombinant Rabbit mAb
Mouse TNF alpha	HA722041	ELISA(Det)	Recombinant Rabbit mAb
Mouse TREM2	HA721760	ELISA(Cap)	Recombinant Rabbit mAb
Mouse TREM2	HA721761	ELISA(Det)	Recombinant Rabbit mAb
Mouse VEGF	HA721850	ELISA(Cap)	Recombinant Rabbit mAb
Mouse VEGF	HA721851	ELISA(Det)	Recombinant Rabbit mAb
Mouse IL-21	HA722174	ELISA(Cap)	Recombinant Rabbit mAb
Mouse IL-21	HA722175	ELISA(Det)	Recombinant Rabbit mAb

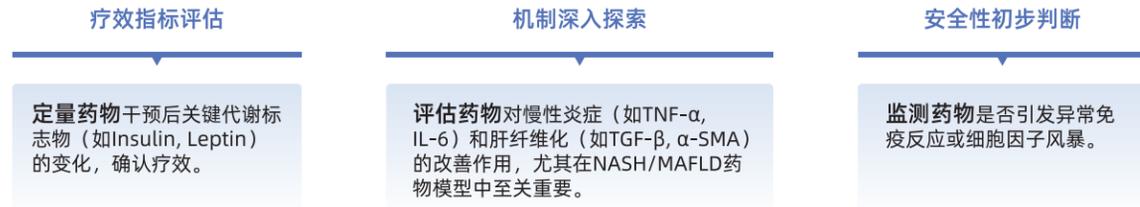
Product name	Catalog#	Applications	Antibody type
Mouse/Rat GDF15	HA723866	ELISA(Cap)	Recombinant Rabbit mAb
Mouse/Rat GDF15	HA723867	ELISA(Det)	Recombinant Rabbit mAb
Mouse/Rat GDF15	HA723868	ELISA(Cap)	Recombinant Rabbit mAb
Mouse/Rat TNF alpha	HA721974	ELISA(Cap)	Recombinant Rabbit mAb
Mouse/Rat TNF alpha	HA721975	ELISA(Det)	Recombinant Rabbit mAb
Rat ICAM1	HA723926	ELISA(Cap)	Recombinant Rabbit mAb
Rat ICAM1	HA723927	ELISA(Det)	Recombinant Rabbit mAb
Rat ICAM1	HA723928	ELISA(Cap)	Recombinant Rabbit mAb
Rat IFN gamma	HA722421	ELISA(Cap)	Recombinant Rabbit mAb
Rat IFN gamma	HA722422	ELISA(Det)	Recombinant Rabbit mAb
Rat IL-1 alpha	HA723991	ELISA(Cap)	Recombinant Rabbit mAb
Rat IL-1 alpha	HA723992	ELISA(Det)	Recombinant Rabbit mAb
Rat IL-1 beta	HA721836	ELISA(Cap)	Recombinant Rabbit mAb
Rat IL-1 beta	HA721837	ELISA(Det)	Recombinant Rabbit mAb
Rat IL-6	HA721615	ELISA(Cap)	Recombinant Rabbit mAb
Rat IL-6	HA721616	ELISA(Det)	Recombinant Rabbit mAb
Rat TNF alpha	HA722170	ELISA(Cap)	Recombinant Rabbit mAb
Rat TNF alpha	HA722171	ELISA(Det)	Recombinant Rabbit mAb
TGF beta 1	HA723725	ELISA(Cap)	Recombinant Rabbit mAb
TGF beta 1	HA723726	ELISA(Det)	Recombinant Rabbit mAb

扫码了解更多
代谢性疾病研究相关
“配对抗体”产品信息



Cytokine/Biomarker ELISA检测试剂盒 — 即用型试剂盒，简化实验流程

华安生物（HUABIO）的试剂盒为代谢性疾病中的炎症、纤维化及代谢改善提供可重复的体内外读数。



优质产品推荐

Product name	Catalog#	Size	Sensitivity
Human Adiponectin ELISA Kit	EH0099	96T	0.15 pg/ml (50 μ l); 3.56 pg/ml (10 μ l)
Human CCL2/MCP-1 ELISA Kit	EH0010	96T	0.04 ng/ml (50 μ l); 0.03 ng/ml (10 μ l)
Human CCL5/RANTES ELISA Kit	EH0027	96T	0.7 pg/ml (50 μ l); 4.65pg/ml (10 μ l)
Human CCL5/RANTES ELISA Kit (One step)	EHY0027	96T	0.7 pg/ml (50 μ l); 4.99 pg/ml (10 μ l)
Human CD147/EMMPRIN ELISA Kit	EH0139	96T	1.44 pg/ml (50 μ l); 3.63 pg/ml (10 μ l)
Human CD28 ELISA Kit	EH0183	96T	1.41 pg/ml (50 μ l); 57.28 pg/ml (10 μ l)
Human CD80 ELISA Kit	EH0121	96T	0.08 pg/ml (50 μ l); 0.52 pg/ml (10 μ l)
Human cIAP2 ELISA Kit	EH0123	96T	0.81 pg/ml (50 μ l); 1.59 pg/ml (10 μ l)
Human CKMB ELISA Kit	EH0072	96T	0.005 pg/ml (50 μ l); 0.07 ng/ml (10 μ l)
Human Complement C5 ELISA Kit	EH0108	96T	0.05 pg/ml (50 μ l); 3.14 pg/ml (10 μ l)
Human Complement C5 ELISA Kit (One step)	EHY0108	96T	0.01 ng/ml (50 μ l); 0.18 ng/ml (10 μ l)
Human CRP ELISA Kit	EH0076	96T	4.26 pg/ml (50 μ l); 21.23 pg/ml (10 μ l)
Human CTLA-4 ELISA Kit	EH0179	96T	1.33 pg/ml (50 μ l); 1.97 pg/ml (10 μ l)
Human FGF basic/FGF2/bFGF ELISA Kit	EH0024	96T	1.51 pg/ml (50 μ l); 9.93 pg/ml (10 μ l)
Human FGF-19 ELISA Kit	EH0140	96T	0.48 pg/ml (50 μ l); 4.11 pg/ml (10 μ l)
Human ICAM-1/CD54 ELISA Kit	EH0064	96T	0.49 pg/ml(50 μ l); 6.36 pg/ml (10 μ l)
Human ICAM-1/CD54 ELISA Kit (One step)	EHY0064	96T	1.22 pg/ml (50 μ l); 0.05 ng/ml (10 μ l)
Human IDO1 ELISA Kit	EH0118	96T	1.61pg/ml (50 μ l); 3.04 pg/ml (10 μ l)
Human IFN- γ ELISA Kit	EH0039	96T	0.36 pg/ml (50 μ l); 0.85 pg/ml (10 μ l)
Human IGFBP3/IBP3 ELISA Kit (One step)	EHY0157	96T	0.004 ng/ml (50 μ l); 13.60 ng/ml (10 μ l)
Human IL-12B p40 ELISA Kit	EH0098	96T	0.29 pg/ml (50 μ l); 1.84 pg/ml (10 μ l)
Human IL-15 ELISA Kit	EH0031	96T	0.14 pg/ml (50 μ l); 0.79 pg/ml (10 μ l)
Human IL-17A ELISA Kit	EH0004	96T	0.26 pg/ml (50 μ l); 0.65 pg/ml (10 μ l)
Human IL-18 ELISA Kit	EH0053	96T	0.46pg/ml (50 μ l); 2.13 pg/ml (10 μ l)

Product name	Catalog#	Size	Sensitivity
Human IL-1 β ELISA Kit	EH0006	96T	0.77 pg/ml (10 μ l)
Human IL-2 Receptor alpha ELISA Kit	EH0170	96T	0.01 pg/ml (50 μ l); 1.14 pg/ml (10 μ l)
Human IL-21 ELISA Kit	EH0018	96T	21.7 pg/ml (50 μ l); 67.9 pg/ml (10 μ l)
Human IL-22 ELISA Kit	EH0086	96T	0.03 pg/ml (50 μ l); 0.21 pg/ml (10 μ l)
Human IL-6 ELISA Kit	EH0001	96T	0.26 pg/ml (50 μ l); 0.43 pg/ml (10 μ l)
Human Leptin ELISA Kit	EH0056	96T	9.45 pg/ml (50 μ l); 18.83 pg/ml (10 μ l)
Human Lipocalin-2/NGAL ELISA Kit (One step)	EHY0166	96T	0.01 ng/ml (50 μ l); 0.03 ng/ml (10 μ l)
Human Lipoprotein A/LPA ELISA Kit	EH0171	96T	1.11 pg/ml (50 μ l); 7.76 pg/ml (10 μ l)
Human Osteoprotegerin/TNFRSF11B ELISA Kit	EH0070	96T	0.37 pg/ml (50 μ l); 2.53 pg/ml (10 μ l)
Human PAI-1/Serpin E1 ELISA Kit (One step)	EHY0160	96T	2.18 pg/ml (50 μ l); 40.00 pg/ml (10 μ l)
Human PD-1 ELISA Kit	EH0062	96T	0.05 pg/ml (50 μ l); 1.64 pg/ml (10 μ l)
Human PDGF-AA ELISA Kit	EH0058	96T	0.10 ng/ml (50 μ l); 0.17 ng/ml (10 μ l)
Human PDGF-BB ELISA Kit	EH0068	96T	2.79 pg/ml (50 μ l); 7.56 pg/ml (10 μ l)
Human PD-L1/B7-H1 ELISA Kit	EH0048	96T	8.50 pg/ml (50 μ l); 26.02 pg/ml (10 μ l)
Human Proprotein Convertase 9/PCSK9 ELISA Kit	EH0071	96T	0.02 ng/ml (50 μ l); 0.17 ng/ml (10 μ l)
Human Proprotein Convertase 9/PCSK9 ELISA Kit (One step)	EHY0071	96T	0.39 ng/ml (50 μ l); 0.73 ng/ml (10 μ l)
Human TNF beta/Lymphotoxin alpha ELISA Kit	EH0181	96T	10.59 pg/ml (50 μ l); 83.08 pg/ml (10 μ l)
Human TNF RII/TNFRSF1B ELISA Kit	EH0148	96T	0.27 pg/ml (50 μ l); 5.77 pg/ml (10 μ l)
Human TNF- α ELISA Kit	EH0002	96T	0.21 pg/ml (50 μ l); 0.26 pg/ml (10 μ l)
Human tPA ELISA Kit (One step)	EHY0158	96T	0.03 ng/ml (50 μ l); 0.10 ng/ml (10 μ l)
Human TREM2 ELISA Kit (One step)	EHY0122	96T	0.004 ng/ml (50 μ l); 0.05 ng/ml (10 μ l)
Human TSLP ELISA Kit	EH0061	96T	1.56 pg/ml (50 μ l); 4.58 pg/ml (10 μ l)
Human VEGF ELISA Kit	EH0075	96T	1.04 pg/ml (50 μ l); 3.21 pg/ml (10 μ l)
Human/Mouse BDNF ELISA Kit	EH0069	96T	1.05 pg/ml (50 μ l); 2.53 pg/ml (10 μ l)
Human/Mouse/Rat/Porcine/Canine TGF- β 1 ELISA Kit	EH0012	96T	33.32 pg/ml (50 μ l)
Human/Rat/Mouse Irisin ELISA Kit	EH0081	96T	2.60 pg/ml (50 μ l); 9.39 pg/ml (10 μ l)
Mammal Insulin ELISA Kit	EH0038	96T	60.07 pg/ml (50 μ l); 314.56 pg/ml (10 μ l)
Mouse CCL2/MCP-1 ELISA Kit	EM0025	96T	1.78 pg/ml (10 μ l)
Mouse CCL5/RANTES ELISA Kit	EM0032	96T	1.86 pg/ml (10 μ l)
Mouse CD86 ELISA Kit	EM0046	96T	0.28 pg/ml (10 μ l)
Mouse CRP/C-Reactive Protein ELISA Kit	EM0035	96T	0.01 ng/ml (50 μ l)
Mouse IFN- γ ELISA Kit	EM0009	96T	3.24 pg/ml (10 μ l)
Mouse IL-1 alpha/IL-1 F1 ELISA Kit	EM0047	96T	0.05 pg/ml (10 μ l)

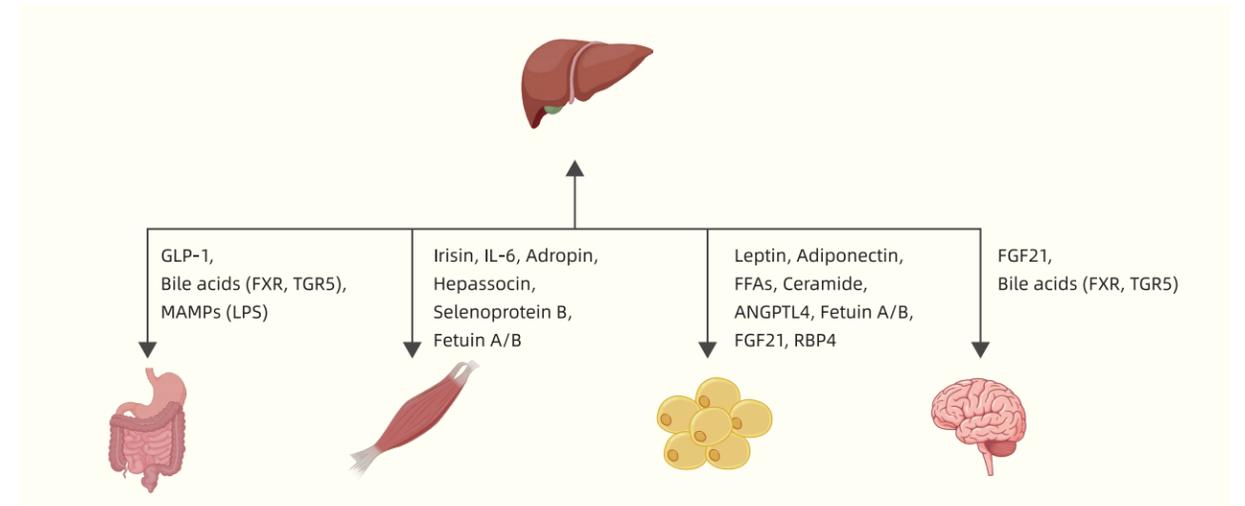
Product name	Catalog#	Size	Sensitivity
Mouse IL-12/IL-23 p40 ELISA Kit	EM0012	96T	1.65 pg/ml (10 μ l)
Mouse IL-17A ELISA Kit	EM0008	96T	0.25 pg/ml (10 μ l)
Mouse IL-18 ELISA Kit	EM0034	96T	1.46 pg/ml (10 μ l)
Mouse IL-1 β ELISA Kit	EM0029	96T	0.91 pg/ml (10 μ l)
Mouse IL-21 ELISA Kit	EM0020	96T	3.22 pg/ml (10 μ l)
Mouse IL-22 ELISA Kit	EM0021	96T <td 11.2 pg/ml (10 μ l)	
Mouse IL-6 ELISA Kit	EM0004	96T	0.36 pg/ml (10 μ l)
Mouse Leptin ELISA Kit	EM0027	96T	19.30 pg/ml (50 μ l)
Mouse PD-1 ELISA Kit	EM0037	96T	7.65 pg/ml (10 μ l)
Mouse PD-L1 ELISA Kit	EM0036	96T	0.16 pg/ml (10 μ l)
Mouse TNF- α ELISA Kit	EM0010	96T	0.097 pg/ml (10 μ l)
Mouse TREM2 ELISA Kit	EM0039	96T	0.60 pg/ml (10 μ l)
Mouse VEGF ELISA Kit	EM0013	96T	0.57 pg/ml (10 μ l)
Rat CRP/C-Reactive Protein ELISA Kit	ER0009	96T	27.24 pg/ml (50 μ l); 63.91 pg/ml (10 μ l)
Rat CRP/C-Reactive Protein ELISA Kit (One step)	ERY0009	96T	2.9 pg/ml (50 μ l); 42.15 pg/ml (10 μ l)
Rat IFN- γ ELISA Kit	ER0006	96T	7.39 pg/ml (50 μ l)
Rat IL-1 β ELISA Kit	ER0001	96T	17.11 pg/ml (50 μ l)
Rat IL-6 ELISA Kit	ER0004	96T	7.05pg/ml (50 μ l)
Rat TNF- α ELISA Kit	ER0007	96T	0.08 pg/ml (50 μ l); 0.16 pg/ml (10 μ l)

扫码了解更多
代谢性疾病研究相关
“ELISA Kits” 产品信息



多重免疫组化技术 (mIHC) 整体解决方案 — 揭示疾病机制的“全景图”

在代谢性疾病药物研发中，解析组织微环境中多种细胞类型、信号通路及其相互作用的空间关系，是理解疾病机制与评估药效的关键。多重免疫组化 (mIHC) 技术正是解密这一复杂生物学问题的核心工具。



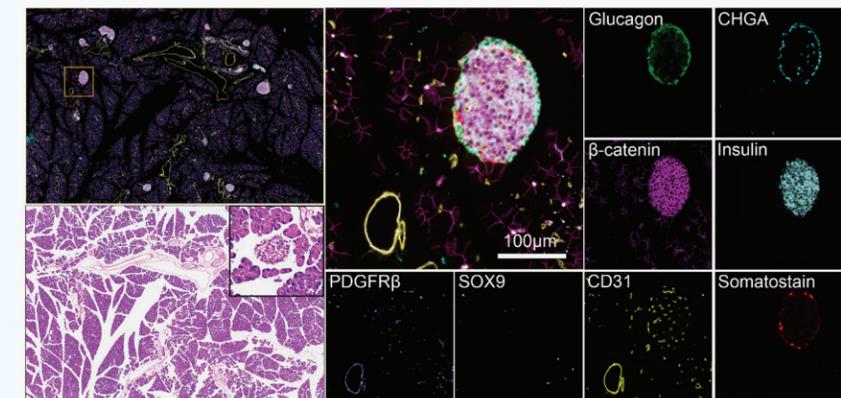
肝脏与代谢器官的相互通讯网络

我们提供的每一款经mIHC验证的抗体，均严格达到在多重染色应用中对超高特异性、卓越灵敏度与优异批次间一致性的严苛标准。

依托我们庞大且经过严格验证的抗体库与深厚的专业知识，我们的专业技术团队可为您提供从靶点选择、荧光染料搭配、实验方案优化到数据分析的全方位、定制化Panel设计与技术支持。

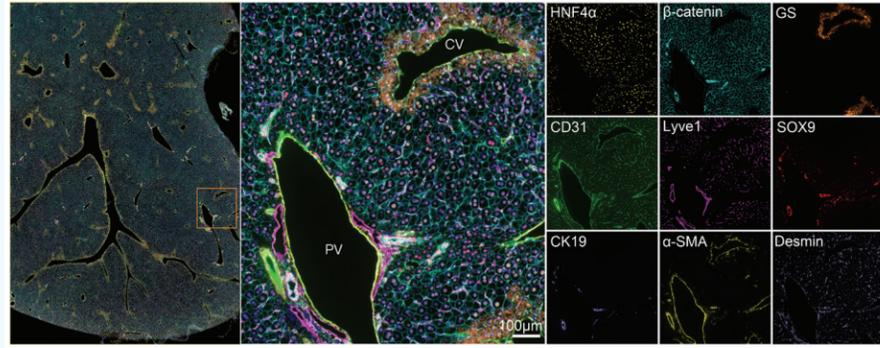
经典案例

Case1: 小鼠胰腺8-Plex Panel — 解码胰岛结构与细胞命运的密钥



结果解读：通过上述mIHC panel，可以系统性地评估：1) 胰岛细胞组成与结构完整性；2) β 细胞去分化与转分化的证据；3) 胰岛微血管系统的变化；4) 潜在的 β 细胞再生途径。这为理解糖尿病进展及药物干预效果提供了前所未有的空间生物学信息。其中，关键抗体（如胰岛素/胰高血糖素）在多重标记中表现出卓越的特异性和区分度。

Case2: 小鼠肝脏8-Plex Panel——绘制代谢 zonation 与疾病演进的时空图谱



结果解读：通过上述mIHC panel，可以系统性解析：1) 可视化并量化肝脏代谢分区；2) 动态追踪肝星状细胞活化及纤维化进程；3) 鉴定胆管反应和肝细胞转分化的发生；4) 分析不同细胞区室在疾病中的相互作用网络。这对于阐明MASH从脂肪变性到纤维化的机制，以及评估靶向药物（如FXR激动剂、ASK1抑制剂）在特定肝区或特定细胞类型上的作用至关重要。



扫码了解更多
代谢性疾病研究相关
“mIHC抗体”产品信息



扫码了解更多
代谢性疾病研究相关
“mIHC抗体Panel”产品信息

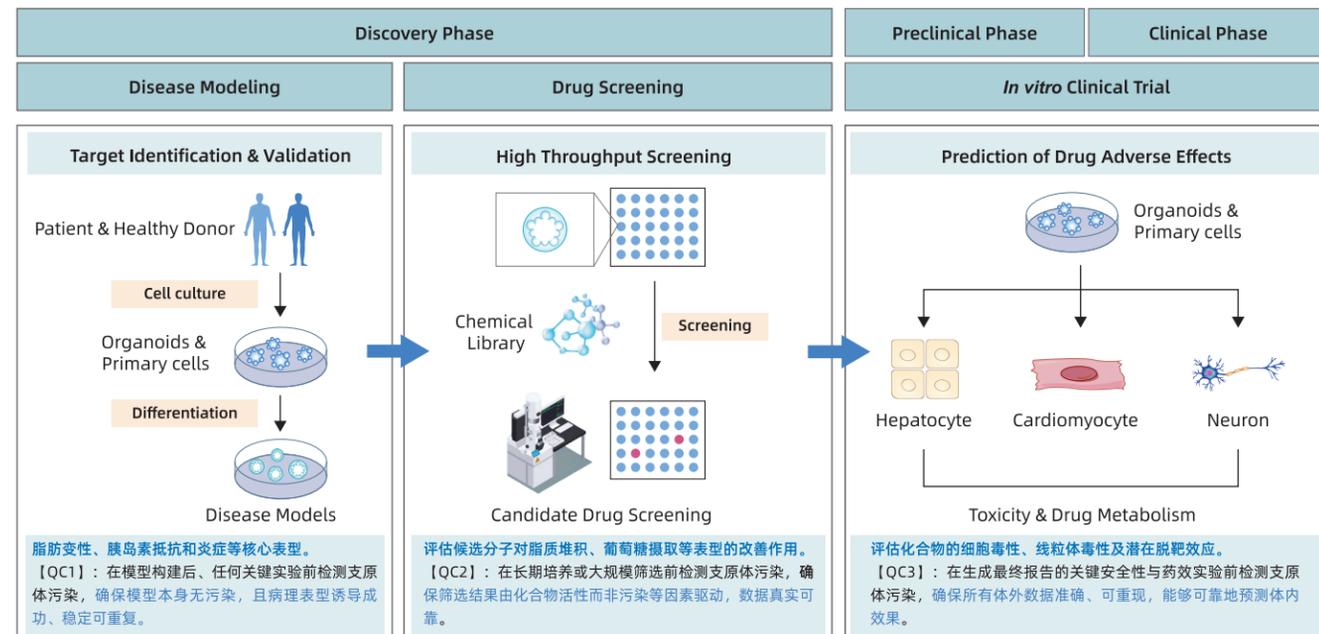


扫码了解更多
代谢性疾病研究相关
“TSA检测试剂盒”产品信息

欢迎联系我们的技术专家，为您定制针对代谢性疾病的mIHC解决方案。

PCR/qPCR支原体检测试剂盒 — 保障细胞模型可靠性

在代谢性疾病药物研发中，类器官与细胞模型提供了前所未有的生理相关性，而贯穿始终的支原体检测则是保障数据真实性的核心基础。



我们提供的支原体PCR/qPCR检测试剂盒，具有高灵敏度（可检测<10 CFU/ml）、高特异性（覆盖>50种常见支原体物种）和快速（<2小时）的特点，确保研发全流程中数据真实可靠。

货号	产品名称	应用
K0103	支原体PCR检测试剂盒	PCR
K0105	支原体qPCR检测试剂盒	qPCR

支原体qPCR检测试剂盒 | K0105

MycoHUABIO支原体DNA qPCR检测试剂盒按照EP2.6.7 和 JPXVII 支原体检测相关标准进行验证，可用于检测主细胞库、工作细胞库、临床治疗用细胞和生物制品中的支原体污染。

本试剂盒利用荧光探针法（qPCR技术），参照EP2.6.7 和 JP XVII 支原体检测相关要求验证，具备检测快速和专一性强的特性。

注：本试剂盒仅用于研究，不能用于临床诊断。



• 应用领域

用于检测细胞培养过程中的支原体污染。

• 产品优势

- 1. 特异性强、灵敏度高：**
检出比均大于95%，符合欧洲及日本药典特异性及灵敏度要求。
- 2. 稳定性高：**
MycoHUABIO支原体DNA检测试剂盒经过5次冻融测试后，试剂盒性能不受影响。
- 3. 步骤简单、检测快速：**
2h内可完成检测工作。

结语

华安生物（HUABIO）致力于为代谢性疾病药物开发提供坚实、可靠的工具与服务平台。我们的产品与服务贯穿从早期发现到临床前研究的全过程，助您加速研发进程，攻克科学难题。

欢迎访问官网或联系我们，获取更多产品资料与技术支持。