



扫码关注公众号



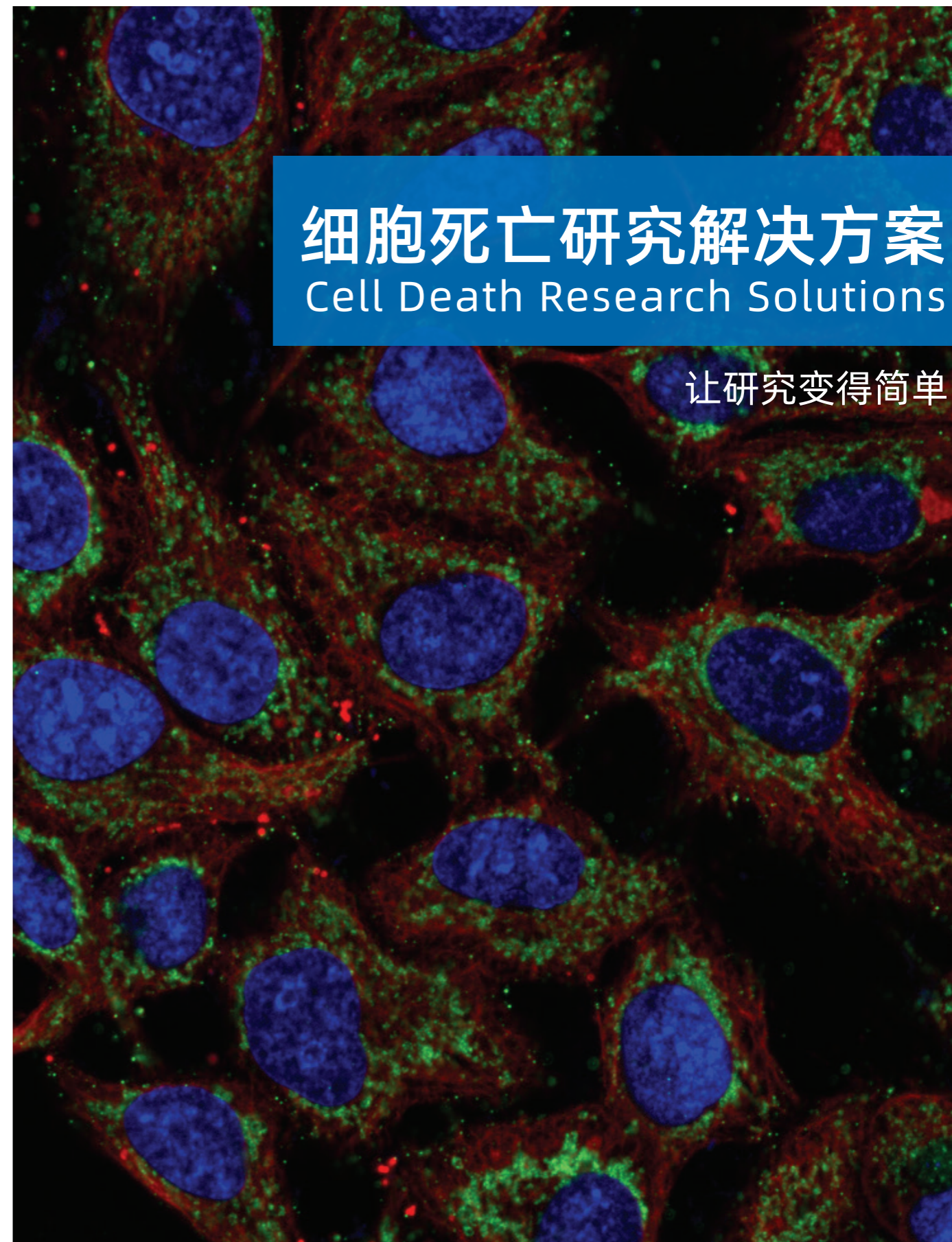
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细胞死亡研究解决方案

Cell Death Research Solutions

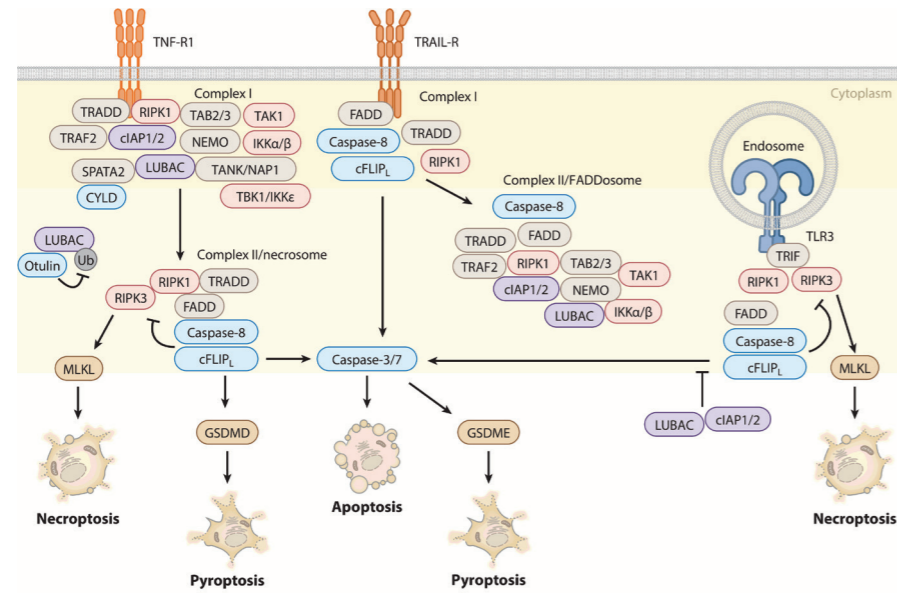
让研究变得简单

 华安生物
H U A B I O

细胞死亡概览

细胞死亡是生命科学的基础，也是疾病发生发展的核心环节。从经典的凋亡到新发现的铜死亡，华安生物（HUABIO）对程序性细胞死亡的认识正经历深刻变革。精准地识别和监测不同死亡途径，对于癌症、神经退行性疾病、炎症性疾病等领域的机制研究和药物开发至关重要。

华安生物（HUABIO）始终致力于为您提供经过严格验证的高质量抗体和试剂盒。华安生物（HUABIO）针对每条细胞死亡通路的关键靶点，开发了一系列精准可靠的检测工具，助力科研工作者在细胞死亡领域的前沿研究。



PMID: 37788577

细胞死亡的主要特征

细胞死亡方式	主要特征	核心检测蛋白	HUABIO解决方案
细胞凋亡	I型程序性细胞死亡，细胞皱缩、染色质凝集、核片段化、形成凋亡小体，非炎症。	Caspase-3/Cleaved Caspase-3, Caspase-9, PARP1, Bcl-2, Bax	
坏死性凋亡	受调控的坏死样死亡，细胞肿胀、膜破裂，释放DAMPs引发炎症。	RIPK1, RIPK3, p-RIPK3 (Ser227), MLKL, p-MLKL (Ser358)	<ul style="list-style-type: none"> 丰富的修饰特异性抗体：针对剪切体 (Cleaved Caspase-3、Cleaved GSDMD)、磷酸化位点 (p-RIPK3、p-MLKL) 等；
铁死亡	铁依赖性的脂质过氧化驱动死亡，线粒体皱缩、嵴减少。	GPX4, SLC7A11(xCT), ACSL4, FTH1	<ul style="list-style-type: none"> 细胞死亡抗体套装：涵盖凋亡、自噬、焦亡、铁死亡关键分子的预配组合，节省经费，方便初筛；
铜死亡	铜离子过载直接触发，靶向三羧酸循环中脂酰化蛋白，诱导蛋白毒性应激。	DLD, DLAT, FDX1, LIAS	<ul style="list-style-type: none"> ELISA试剂盒：定量检测IL-1β、HMGB1等分泌型死亡相关因子；
细胞自噬	降解循环机制，过度激活可致II型程序性死亡，形成双层膜自噬体。	LC3B (MAP1LC3B), Beclin-1, p62/SQSTM1, ATG5	<ul style="list-style-type: none"> 多重免疫荧光试剂盒：同时检测多个死亡通路标志物，解析细胞命运决定的时空动态。
细胞焦亡	炎症程序性死亡，炎症小体激活caspase-1，切割GSDMD，膜打孔释放IL-1β/IL-18。	GSDMD, Cleaved GSDMD-NT, Caspase-1, IL-1β, NLRP3	

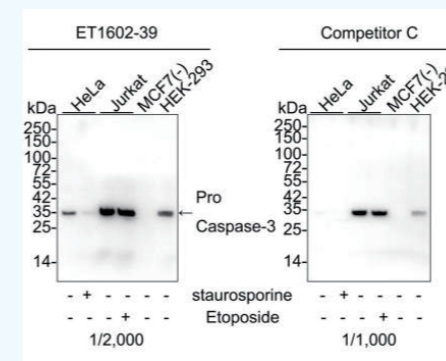
特色产品推荐：细胞死亡研究精品抗体

• 细胞凋亡相关检测

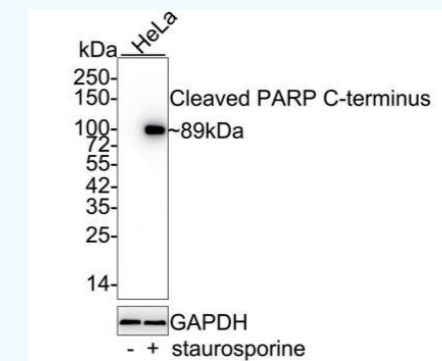
核心特征：I型程序性死亡，非炎症，细胞皱缩、核片段化、形成凋亡小体。

关键事件：Caspase级联激活，线粒体通路调控。

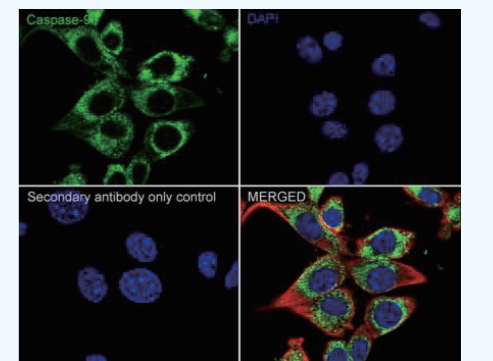
主要蛋白标志物：Caspase-3, Cleaved Caspase-3, Caspase-9, PARP1, Bcl-2, Bax



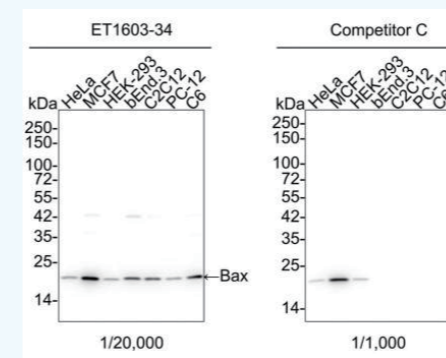
Pro Caspase-3 Rabbit mAb | ET1602-39
WB analysis on different lysates



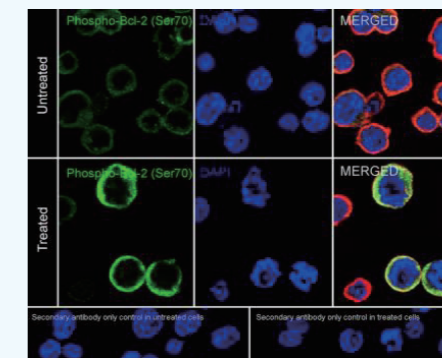
Cleaved PARP Rabbit mAb | ET1608-10
WB analysis on HeLa cell lysates



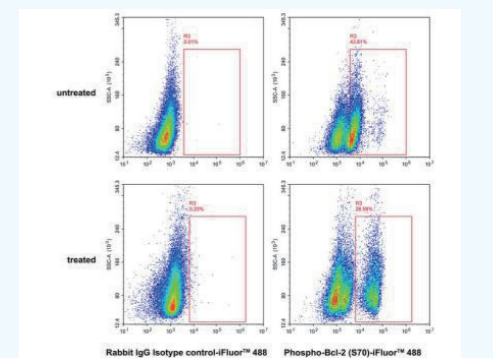
Caspase-9 Rabbit mAb | ET1603-27
IF-Cell staining with NIH/3T3 cells



Bax Rabbit mAb | ET1603-34
WB analysis on different lysates



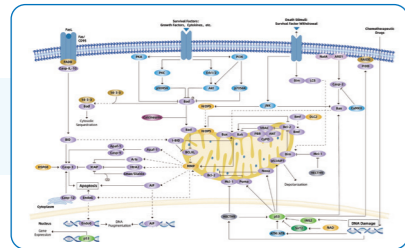
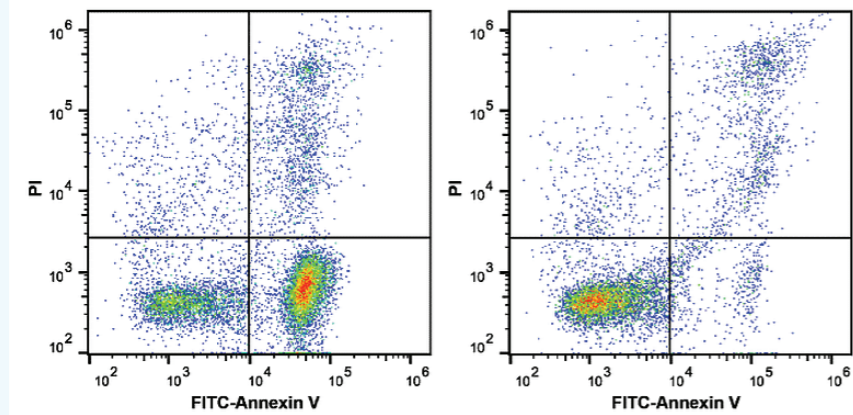
Phospho-Bcl-2 (S70) Rabbit mAb | HA723269
IF-Cell staining with Jurkat cells untreated / treated with paclitaxel



Phospho-Bcl-2 (S70) Rabbit mAb | HA723269
FC analysis with Jurkat cells untreated / treated with paclitaxel

Annexin V-FITC/PI 细胞凋亡检测试剂盒

	APAP-50 50 Test		APAP-100 100 Test	
	Catalog#	Quantity	Catalog#	Quantity
Annexin V	AV-50	250μl	AV-100	500μl
PI	PI-50	500μl	PI-100	1000μl
5 × Binding buffer	BB01	8 ml	BB02	15ml



线粒体凋亡信号通路图 (详见附录一)

扫码了解更多
“Mitochondrial Apoptosis信号通路图”
相关研究产品信息

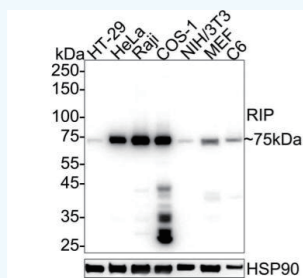


• 坏死性凋亡相关检测

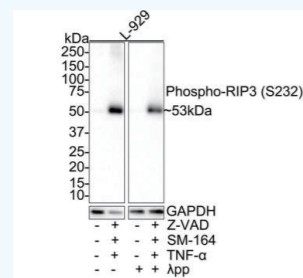
核心特征: 调节性坏死, 膜破裂, 释放DAMPs, 引发炎症。

关键事件: RIPK1/RIPK3/MLKL 信号轴。

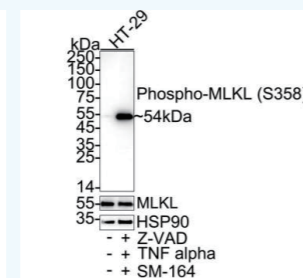
主要蛋白标志物: RIPK1, RIPK3, p-RIPK3 (Ser227), MLKL, p-MLKL (Ser358)



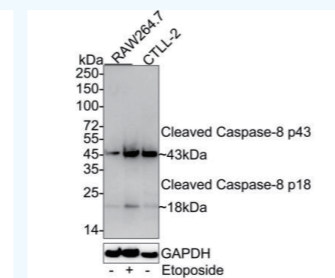
RIP Rabbit mAb | HA724083
WB analysis on different lysates



Phospho-RIP3 (S232) Rabbit mAb | HA721428
WB analysis on L-929 lysates with different treatments



Phospho-MLKL (S358) Rabbit mAb | HA724063
WB analysis on HT-29 lysates with different treatments



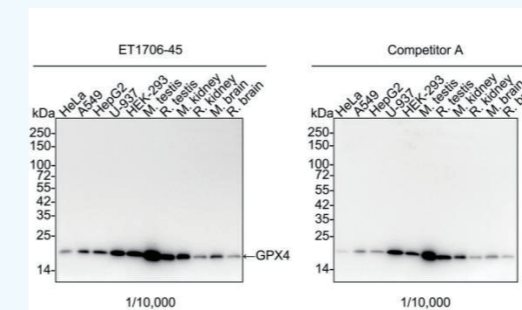
Caspase-8 (p18) Rabbit mAb | HA722482
WB analysis on different lysates

• 铁死亡相关检测

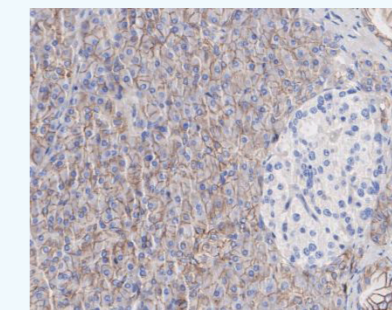
核心特征: 铁依赖性的脂质过氧化驱动, 线粒体皱缩。

关键事件: GPX4失活, 脂质过氧化物累积。

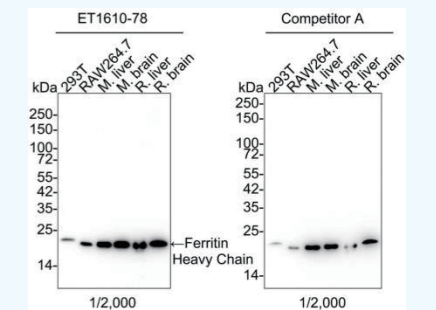
主要蛋白标志物: GPX4, SLC7A11 (xCT), ACSL4, FTH1



GPX4 Rabbit mAb | ET1706-45
WB analysis on different lysates



xCT / SLC7A11 Mouse mAb | HA601071
IHC-P staining with human pancreas tissue



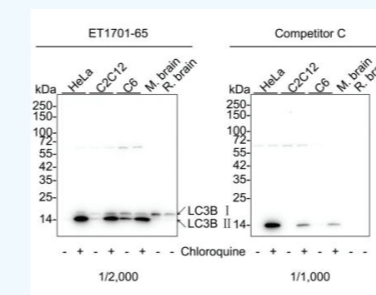
Ferritin Heavy Chain (FTH1) Rabbit mAb | ET1610-78
WB analysis on different lysates

• 细胞自噬相关检测

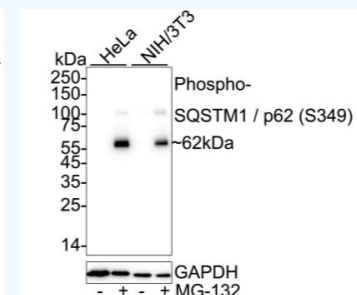
核心特征: 降解循环机制, 过度激活可致II型程序性死亡, 形成双层膜自噬体。

关键事件: LC3脂化, p62降解。

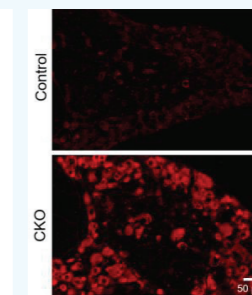
主要蛋白标志物: LC3B, p62/SQSTM1, Beclin-1, ATG5, LAMP1



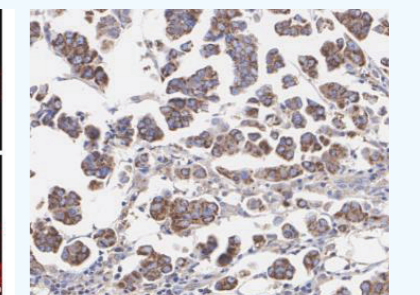
LC3B Rabbit mAb | ET1701-65
WB analysis on different lysates



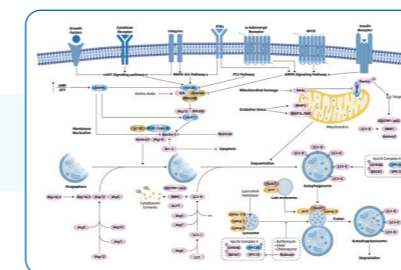
Phospho-SQSTM1 / p62 (S349) Rabbit mAb | HA723050
WB analysis on different lysates



LAMP1 Rabbit mAb | HA722302
IF-Fr staining with mouse dorsal root ganglion



Beclin 1 Rabbit mAb | HA721216
IHC-P staining with human breast cancer tissue



细胞自噬信号通路图 (详见附录二)

扫码了解更多
“Autophagy信号通路图”
相关研究产品信息



Necroptosis				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
FADD	HA722140	Ms,R	WB	Rabbit mAb
Fas / CD95	ET1701-92	H	WB,IF-Tissue,IHC-P	Rabbit mAb
Fas / CD95	HA724196	Ms	WB,IHC-Fr,FC,IP	Rabbit mAb
MLKL	ET1601-25	H,Ms	WB,IHC-P,IF-Cell,FC	Rabbit mAb
Phospho-MLKL (S358)	HA724063	H	WB,Dot Blot	Rabbit mAb
Phospho-MLKL (S345)	ET1705-51	Ms	WB,IHC-P,IHC-Fr	Rabbit mAb
PGAM5	HA723364	H,Ms,R	WB	Rabbit mAb
RIP	HA724083	H,Ms,R,Mk	WB	Rabbit mAb
RIP3	ER1901-27	Ms,R	WB,IHC-P	Rabbit pAb
RIP3	HA722182	H	WB,IHC-P	Rabbit mAb
Phospho-RIP3 (S232)	HA721428	Ms,R	WB,IF-Cell	Rabbit mAb
TLR3	HA724070	H,Ms	WB	Rabbit mAb
Human TNF alpha	HA721286	H	IHC-P,mIHC	Rabbit mAb
TNF alpha	HA722022	H,Ms	WB	Rabbit mAb
TRADD	HA722000	H,Ms,R	WB,IF-Cell	Rabbit mAb
TRAF2	ET1612-5	H,Ms,R	WB,IHC-P,IP	Rabbit mAb
TRAF6	HA722857	H,Ms,R	WB,IF-Cell,FC	Rabbit mAb
Ferroptosis				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
ACSL4 / FAFL4	ET7111-43	H,Ms,R	WB,IHC-P	Rabbit mAb
AMID	HA723767	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC,IP	Rabbit mAb
Ferritin Heavy Chain	ET1610-78	H,Ms,Z,R	WB,IF-Cell,IF-Tissue,IHC-P,FC,IHC-Fr	Rabbit mAb
GPX4	ET1706-45	H,Ms,R,Z,P,Cmk	WB,IHC-P,IF-Cell,FC	Rabbit mAb
Heme Oxygenase 1 (HO-1)	HA721854	H,Ms	WB,IF-Cell,IHC-P,mIHC	Rabbit mAb
Phospho-Hsp27 (S82)	ET1611-16	H,Ms,R	WB,IP,IF-Cell,FC	Rabbit mAb
Phospho-Hsp27 (S78)	ET1701-19	H	WB,IF-Cell,IF-Tissue,IHC-P,IP	Rabbit mAb
Hsp27	ET1701-70	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC	Rabbit mAb
Phospho-Nrf2 (S40)	ET1608-28	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC,IP	Rabbit mAb
Nrf2	HA723302	H,Ms,R	WB,IF-Cell,ChIP	Rabbit mAb
Transferrin Receptor (CD71)	HA723545	H,Ms,R	WB,IF-Cell,IHC-P,FC,IP,IF-Tissue	Rabbit mAb
xCT / SLC7A11	HA601071	H,Ms	WB,IHC-P,IF-Cell,FC	Mouse mAb
COX2/Cyclooxygenase 2	ET1610-23	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P	Rabbit mAb

Ferroptosis				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
DHODH	HA723134	H,Ms,R	WB,IHC-P	Rabbit mAb
GCH1	HA722937	H,Ms,R	WB,IHC-P,IF-Cell,FC,IF-Tissue	Rabbit mAb
Keap1	HA721525	H,Ms,R	WB,IHC-P,FC,IP	Rabbit mAb
Cuproptosis				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
ADX	HA721329	H,Ms,R	WB,IHC-P,IF-Cell	Rabbit mAb
COX IV	ET1701-63	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC	Rabbit mAb
Glutaminase	ET1611-5	H,R,Ms	WB,IF-Cell,IF-Tissue,IHC-P,FC	Rabbit mAb
Hexokinase 1	ET1609-28	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC	Rabbit mAb
Hexokinase II	HA500186	H,Ms,R	WB,IF-Cell,IHC-P,FC	Rabbit pAb
HSP60	ET1609-45	H,Ms,R	WB,IHC-P,IF-Cell,IP	Rabbit mAb
Hsp70	ET1601-11	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC	Rabbit mAb
Lactate Dehydrogenase	ET1608-57	H,Ms,R,Z	WB,IF-Cell,IF-Tissue,IHC-P,FC,IP	Rabbit mAb
LDHA	HA723547	H,Ms,R	WB,IHC-P,IF-Cell,FC	Rabbit mAb
LDHA + LDHB	HA723486	H,Ms,R	WB,IHC-P,IF-Cell,FC,IP	Rabbit mAb
LIAS	HA722085	H,Ms,R	WB,IF-Cell	Rabbit mAb
Lipoamide Dehydrogenase	HA721512	H,Ms	WB,IHC-P,IF-Cell	Rabbit mAb
MTF1	HA722658	H	WB,IF-Cell,IHC-P,FC	Rabbit mAb
NLRP3	HA724075	H,Ms	WB	Rabbit mAb
p16INK4a	HA721415	H	WB,IHC-P,IF-Cell	Rabbit mAb
p16INK4a	HA723746	Ms	WB,IHC-P,IP	Rabbit mAb
PDHA1	ET1702-75	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC	Rabbit mAb
Phospho-PDHA1 (S293)	HA721443	H,Ms,R	WB,IHC-P,IF-Cell	Rabbit mAb
PDHB	ET1705-57	H,Ms,R	WB,IHC-P,FC,IP	Rabbit mAb
PDK1	ET1704-66	H,Ms,R	WB,IHC-P,IF-Tissue,IP	Rabbit mAb
PKM2	HA723370	H,Ms,R,Mk	WB,IF-Cell,IHC-P,FC,IP	Rabbit mAb
Pyruvate Dehydrogenase E2	HA721267	H,Ms,R	WB,IHC-P	Rabbit mAb
SLC31A1 / CTR1	HA720005	H,Ms,R	WB	Rabbit mAb
Superoxide Dismutase 1	ET1702-36	H,Ms,R,Cmk,P	WB,IF-Cell,IHC-P,FC	Rabbit mAb
Tyrosinase	ET1704-18	H,Ms	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC	Rabbit mAb
Glutaminase	ET1611-5	H,R,Ms	WB,IF-Cell,IF-Tissue,IHC-P,FC	Rabbit mAb

Pyroptosis				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
Caspase-1	ET1608-69	H,Ms,R	WB,FC,IF-Cell	Rabbit mAb
Caspase-1 + p10 + p12	HA722222	H,Ms,R	WB,IF-Cell,IHC-P	Rabbit mAb
Caspase-3 p12	HA722235	H,Ms,R	WB,IHC-P	Rabbit mAb
Caspase-4	HA601431	H,Cmk	WB	Rabbit mAb
Caspase-8	HA722181	H	WB,IF-Cell,IHC-P,FC,IP	Rabbit pAb
Caspase-8 (p18)	HA722482	Ms	WB,IF-Cell	Rabbit mAb
Cleaved Caspase-3	ET1602-47	H,P	WB,IF-Cell,IHC-P	Rabbit mAb
Cleaved+pro Caspase-3	HA722367	H,Ms	WB	Rabbit mAb
DFNA5 / GSDME	HA723251	H,Ms	WB,IP	Rabbit mAb
Gasdermin D (N terminal)	HA721144	H,Ms,R	WB,IHC-P,IF-Cell	Rabbit mAb
Granzyme A	HA723633	H	WB	Rabbit mAb
Granzyme B	HA500252	H	IHC-P,mIHC,IF-Tissue	Rabbit mAb
Granzyme B	IRS054	Ms	mIHC	Rabbit mAb
GSDMD	HA601046	H,Ms	WB	Rabbit mAb
IL-1 beta	HA601036	H,Ms,R	WB,ELISA,IHC-P,IF-Tissue	Rabbit mAb
IL-1 beta	HA723965	Ms,R	WB,IHC-P,IF-Cell	Rabbit mAb
IL-18	HA723978	H,Ms,R	WB,IHC-P,IP	Rabbit mAb
NLRP3	ET1610-93	H,Ms,R	WB,IF-Cell,IHC-P,FC	Rabbit mAb
Pro Caspase-3	ET1602-39	H,Mk	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC	Rabbit mAb
Pyrin	HA722509	H	WB,FC	Rabbit mAb
TMS1 / ASC	HA723917	H,Ms	WB,IHC-Fr,IHC-P	Rabbit mAb

Autophagy				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
AMPK alpha 1	ET1608-40	H,Ms,R	WB,IF-Cell,IF-Tissue,FC,IP,IHC-Fr,IHC-P	Rabbit mAb
Phospho-AMPK alpha 1 (S496)	ET1612-72	H,Ms	WB,IP,IHC-Fr	Rabbit mAb
Phospho-AMPK alpha 1 (T183) +AMPK alpha 2 (T172)	HA723603	H,Ms,R	WB,IHC-P	Rabbit mAb
Phospho-AMPK alpha 2 (S345)	ET1701-37	H,Ms,R	WB,IF-Tissue,IHC-P,FC	Rabbit mAb
AMPK alpha 2	HA600078	H,Ms,R	WB,IF-Cell,IHC-P	Mouse mAb
Phospho-AMPK alpha 2 (S491)	HA722567	H	WB	Rabbit mAb
AMPK beta 1	ET1612-56	H,Ms,R	WB,IHC-P,FC,IF-Cell	Rabbit mAb
AMPK gamma 1	HA722691	H,Ms,R	WB,IP	Rabbit mAb

Autophagy				
Product name	Catalog#	Species reactivity	Tested applications	Antibody type
ATG14L	HA500096	H,Ms,R	WB,IHC-P	Rabbit pAb
ATG5	ET1611-38	H,Ms,R,Mk	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC	Rabbit mAb
ATG7	ET1610-53	H,R	WB,IF-Tissue,IHC-P,IP,FC	Rabbit mAb
ATG9A	ET1610-71	H,Ms,R	WB,IHC-P,IP	Rabbit mAb
Beclin 1	HA721216	H,Ms,R	WB,IHC-P,IF-Cell,FC	Rabbit mAb
Phospho-Beclin 1 (S30)	HA723840	H,Ms,R	WB	Rabbit mAb
K27-linkage Specific Ubiquitin	HA723066	H,Ms,R	WB,IHC-P,IF-Cell,FC,Dot Blot	Rabbit mAb
K63-linkage Specific Ubiquitin	ET1703-07	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P	Rabbit mAb
LAMP1	HA722302	Ms	WB,IF-Cell,IHC-P,FC,IP,IF-Tissue,IHC-Fr	Rabbit mAb
LAMP2a	ET1601-24	H,Ms,R	WB,IHC-P,IP	Rabbit mAb
LC3B	ET1701-65	H,Ms,R	WB,IF-Cell,IHC-P,IF-Tissue,IP,mIHC	Rabbit mAb
mTOR	ET1608-5	H,Ms,R	WB,IHC-P,IP,IF-Cell,IF-Tissue	Rabbit mAb
Phospho-mTOR (S2448)	HA600094	H,Ms,R	WB,IHC-P	Mouse mAb
Rab1A	HA722021	H,Ms,R	WB,IHC-P,IF-Cell,FC	Rabbit mAb
RAB7	ET1611-96	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC	Rabbit mAb
RAB8A	HA721127	H,Ms,R	WB,FC,IF-Cell,IP	Rabbit mAb
Raptor	HA722028	H,Ms,R	WB,IHC-P	Rabbit mAb
Rubicon / Baron	HA722969	H,Ms,R,Mk	WB	Rabbit mAb
SQSTM1 / p62	HA721171	H,Ms,R,Cmk,P	WB,IHC-P,IF-Cell,FC,IF-Tissue,IHC-Fr	Rabbit mAb
Phospho-SQSTM1 / p62 (S349)	HA723050	H,Ms	WB,IF-Cell,IHC-P	Rabbit mAb
Ubiquitin	ET1609-21	H,Ms,R	WB,IF-Cell,IF-Tissue,IHC-P,FC	Rabbit mAb
ULK1	ET1704-63	H,Ms,R	WB,IHC-P	Rabbit mAb
Phospho-ULK1 (S556)	HA721445	H,Ms	WB	Rabbit mAb
VPS34	ET1607-74	H,Ms,R	IHC-P,FC	Rabbit mAb
VPS34	HA723229	H,Ms,R	WB	Rabbit mAb

*H: Human; Ms: Mouse; R: Rat; Z: Zebrafish; Cmk: Cynomolgus monkey; P: Pig; Mk: Monkey; G: Goat

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“细胞死亡研究抗体”产品清单



特色产品推荐：细胞死亡研究抗体小包装

华安生物 (HUABIO) 推出小包装抗体 (20 μl 规格), 包含凋亡、自噬、焦亡、铁死亡核心靶点, 旨在为科研人员提供一种更经济、更灵活、更可持续的快速筛选与预实验。

货号	产品名称	规格	关键靶标
HAK21028	Ferroptosis Antibody Sampler Kit	20 μl	GPX4, NCOA4, Keap1, Nrf2, CD98, xCT / SLC7A11, DMT1, FTH1
HAK21029	ER Stress-induced Autophagy Antibody Sampler Kit	20 μl	GRP78 / BIP, EIF2S1, Phospho-EIF2S1 (S51), ATG12, Beclin 1, JNK1/2/3, Phospho-JNK1/2/3 (T183 + T183 + T221)
HAK21030	Autophagy Vesicle Elongation (LC3 Conjugation) Antibody Sampler Kit	20 μl	MAP1LC3A, LC3B, ATG7, ATG4B, ATG4A, GABARAP, Apg3
HAK21031	Autophagy Vesicle Elongation (Atg12 Conjugation) Antibody Sampler Kit	20 μl	ATG5, ATG12, ATG16L1, ATG7
HAK21114	Autophagy Essentials Antibody Sampler Kit	20 μl	Beclin 1, LC3B, SQSTM1 / p62, ATG5, LAMP1
HAK21159	Pro-Apoptosis Bcl-2 Family Antibody Sampler Kit	20 μl	Bad, BAX, Bik, Bid, Bim, Bak, PUMA
HAK21164	Cuproptosis Essentials Antibody Sampler Kit	20 μl	ADX, Pyruvate Dehydrogenase E2, LIAS, SLC31A1 / CTR1, Lipoamide Dehydrogenase
HAK21168	Autophagy Marker Antibody Sampler Kit	20 μl	ATG5, ATG16L1, ATG4B, LC3B, ATG9A, Beclin 1
HAK21185	Chaperone-Mediated Autophagy Antibody Sampler Kit	20 μl	LAMP2a, LAMP2, Hsc70, Hsp40, Hsp90, STIP1

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“细胞死亡研究抗体小包装”产品清单



特色产品推荐：细胞死亡研究ELISA检测试剂盒

多种细胞死亡方式 (如坏死性凋亡、焦亡、晚期凋亡) 伴随质膜破裂, 导致细胞内内容物释放到培养上清或体液中。ELISA可精确定量这些损伤相关分子模式 (DAMPs), 是评估细胞死亡程度的“金标准”。

华安生物 (HUABIO) 提供以**高性能ELISA试剂盒**为核心、以**经多平台验证的配对抗体**为延伸的完整解决方案, 确保您的研究数据精准、可靠、可重复。

高特异性与灵敏度

严格验证的兔单克隆抗体配对, 有效避免交叉反应; 检测下限低至pg级别。

操作便捷, 高效省时

即用型试剂盒, 提供优化的一步法检测流程, 节省实验时间。

卓越的批间一致性

重组表达工艺, 每一批次具有高度一致的性能。

广泛的样本兼容性

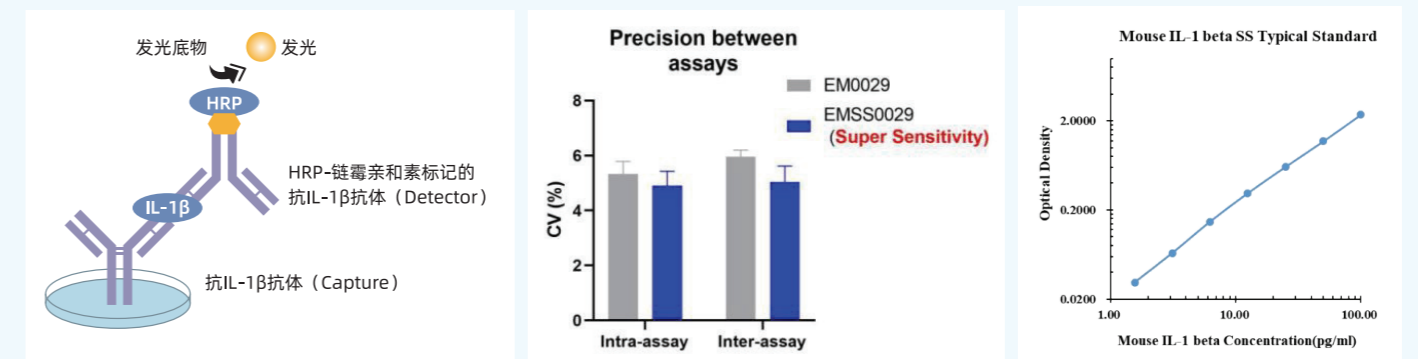
适用于血清、血浆、细胞培养上清液等多种复杂样本。

6+质控标准

提供包含检测限、精密度、回收率、线性实验、天然样本的完整验证数据。

明星产品：Mouse IL-1β Super Sensitivity ELISA Kit (超灵敏) | Catalog# EMSS0029

样本类型	样本数量	浓度范围 (pg/ml)	可测百分率 (%)	检测平均值 (pg/ml)	检测限 (pg/ml)	平均回收率 (%)	板间精密度 (CV, %)
小鼠血清	30	0.18-3.93	100	1.47	0.36	98	CV<8%



在保证稳定的批次间一致性基础上, Mouse IL-1β (超灵敏) ELISA Kit检测灵敏度显著提高, 满足更低丰度靶标的检测。

细胞死亡研究热销ELISA Kit推荐

Product name	Catalog#	Size	Sensitivity
Human beta Amyloid 1-40 ELISA Kit	EH0111	96T	2.92 pg/ml (50 μl); 8.40 pg/ml (10 μl)
Human beta Amyloid 1-42 ELISA Kit	EH0112	96T	3.15 pg/ml (50 μl); 6.07 pg/ml (10 μl)
Human beta-NGF ELISA Kit	EH0065	96T	1.91 pg/ml (50 μl); 3.27 pg/ml (10 μl)
Human CCL2/MCP-1 ELISA Kit	EH0010	96T	0.002 pg/ml (50 μl); 0.02 pg/ml (10 μl)
Human CCL5/RANTES ELISA Kit	EH0027	96T	0.7 pg/ml (50 μl); 4.65 pg/ml (10 μl)
Human CCL5/RANTES ELISA Kit (One step)	EHY0027	96T	0.7 pg/ml (50 μl); 4.99 pg/ml (10 μl)
Human cIAP2 ELISA Kit	EH0123	96T	0.81 pg/ml (50 μl); 1.59 pg/ml (10 μl)
Human CXCL10/IP-10 ELISA Kit	EH0026	96T	0.16 pg/ml (50 μl); 0.68 pg/ml (10 μl)
Human E-Cadherin ELISA Kit	EH0115	96T	25.58 pg/ml (50 μl)
Human Granzyme A/GZMA ELISA Kit	EH0129	96T	0.46 pg/ml (50 μl); 1.46 pg/ml (10 μl)
Human Granzyme B ELISA Kit	EH0052	96T	6.62 pg/ml (50 μl)
Human HVEM/TNFRSF14 ELISA Kit	EH0107	96T	1.68 pg/ml (50 μl); 1.86 pg/ml (10 μl)
Human ICAM-1/CD54 ELISA Kit	EH0064	96T	0.49 pg/ml(50 μl); 6.36 pg/ml (10 μl)
Human ICAM-1/CD54 ELISA Kit (One step)	EHY0064	96T	1.22 pg/ml (50 μl); 0.05 ng/ml (10 μl)
Human IFN-gamma R1 ELISA Kit	EH0104	96T	2.28 pg/ml (50 μl); 11.4 pg/ml (10 μl)

Product name	Catalog#	Size	Sensitivity
Human IFN- α ELISA Kit	EH0085	96T	0.03 pg/ml (50 μ l) ; 0.24 pg/ml (10 μ l)
Human IFN- β ELISA Kit	EH0017	96T	0.35 pg/ml (50 μ l)
Human IFN- γ ELISA Kit	EH0039	96T	0.36 pg/ml (50 μ l) ; 0.85 pg/ml (10 μ l)
Human IL-18 ELISA Kit	EH0053	96T	0.56 pg/ml (50 μ l) ; 1.28 pg/ml (10 μ l)
Human IL-1 β ELISA Kit	EH0006	96T	0.09 pg/ml (50 μ l) ; 0.18 pg/ml (10 μ l)
Human IL-3 ELISA Kit	EH0050	96T	3.74 pg/ml (50 μ l) ; 20.64 pg/ml (10 μ l)
Human IL-33 ELISA Kit	EH0047	96T	0.76 pg/ml (50 μ l) ; 1.25 pg/ml (10 μ l)
Human IL-3R alpha/CD123 ELISA Kit	EH0134	96T	22.75 pg/ml (50 μ l) ; 129.58 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 IL-8/CXCL8 ELISA Kit	EH0014	96T	1.91 pg/ml (50 μ l) ; 2.51 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 MMP-3 ELISA Kit	EH0169	96T	0.79 ng/ml (50 μ l) ; 4.66 ng/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-L1/B7-H1 ELISA Kit	EH0048	96T	8.50 pg/ml (50 μ l) ; 26.02 pg/ml (10 μ l)
Human TNF RI/TNFRSF1A ELISA Kit	EH0128	96T	0.01 ng/ml (50 μ l) ; 0.13 ng/ml (10 μ l)
Human TNF RI/TNFRSF1A ELISA Kit (One step)	EHY0128	96T	0.01 ng/ml (50 μ l) ; 0.13 ng/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 Total HSP60 ELISA Kit	EH0060	96T	3.22 pg/ml (50 μ l) ; 4.45 pg/ml (10 μ l)
Human TRAF1 ELISA Kit	EH0215	96T	2.85 pg/ml (50 μ l) ; 7.62 pg/ml (10 μ l)
Human TRAIL/TNFSF10 ELISA Kit	EH0176	96T	0.90 pg/ml (50 μ l) ; 11.03 pg/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 VE Cadherin ELISA Kit	EH0091	96T	0.01 ng/ml (50 μ l) ; 0.12 ng/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)
Mammal GFAP ELISA Kit	EH0178	96T	2.52 pg/ml (50 μ l) ; 17.06 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)
Mammal NF-L ELISA Kit	EH0154	96T	0.54 pg/ml (50 μ l) ; 1.31 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 IFN alpha-1 ELISA Kit	EM0049	96T	2.65 pg/ml (10 μ l)
Mouse IFN-beta ELISA Kit	EM0040	96T	7.69 pg/ml (10 μ l)
Mouse IFN- γ ELISA Kit	EM0009	96T	3.24 pg/ml (10 μ l)

Product name	Catalog#	Size	Sensitivity
Mouse IL-1 alpha/IL-1 F1 ELISA Kit	EM0047	96T	0.05 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-1 β Super Sensitivity ELISA Kit	EMSS0029	96T	0.12 pg/ml (50 μ l) ; 0.36 pg/ml (10 μ l)
Mouse IL-3 ELISA Kit	EM0048	96T	0.94 pg/ml (10 μ l)
Mouse IL-33 ELISA Kit	EM0033	96T	0.33 pg/ml (10 μ l)
Mouse IL-6 ELISA Kit	EM0004	96T	0.36 pg/ml (10 μ l)
Mouse TNF- α ELISA Kit	EM0010	96T	0.097 pg/ml (10 μ l)
Mouse VEGF ELISA Kit	EM0013	96T	0.57 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 TNF- α ELISA Kit	ER0007	96T	0.08 pg/ml (50 μ l) ; 0.16 pg/ml (10 μ l)

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“细胞死亡研究ELISA Kit及配对抗体”产品清单



高分文献列表

文献标题	客户单位	影响因子	产品名称	引用种属	文献应用
Unfolded protein response kinase PERK supports survival and metastasis of circulating tumor cell clusters via SAM synthesis and H3K4me3-dependent PDGFB signaling (2025)	重庆医科大学	24.9	eIF2A rabbit mAb ET7111-34	Ms,H	WB
MLKL PARYlation in the endothelial niche triggers angiocrine necroptosis to evade cancer immunosurveillance and chemotherapy (2025)	四川大学	19.1	MLKL rabbit mAb ET1601-25	H	WB, IP, CoIP
Synergizing Ferroptosis and Immunotherapy via a PROTAC/PDT/HPK1 Inhibitor-Loaded Nanoplatform for Enhanced Antitumor Efficacy (2025)	南方医科大学	19	xCT / SLC7A1 mouse mAb HA601071	Ms	WB,IF
Self-Adaptive Dynamic Hydrogel Disrupts Ironclad Defense to Augment Photothermal-Catalytic Therapy Against Melanoma Recurrence and Promote Post-Surgical Wound Healing (2025)	四川大学	18.5	Hsp90 beta rabbit mAb ET1605-56	Ms	WB

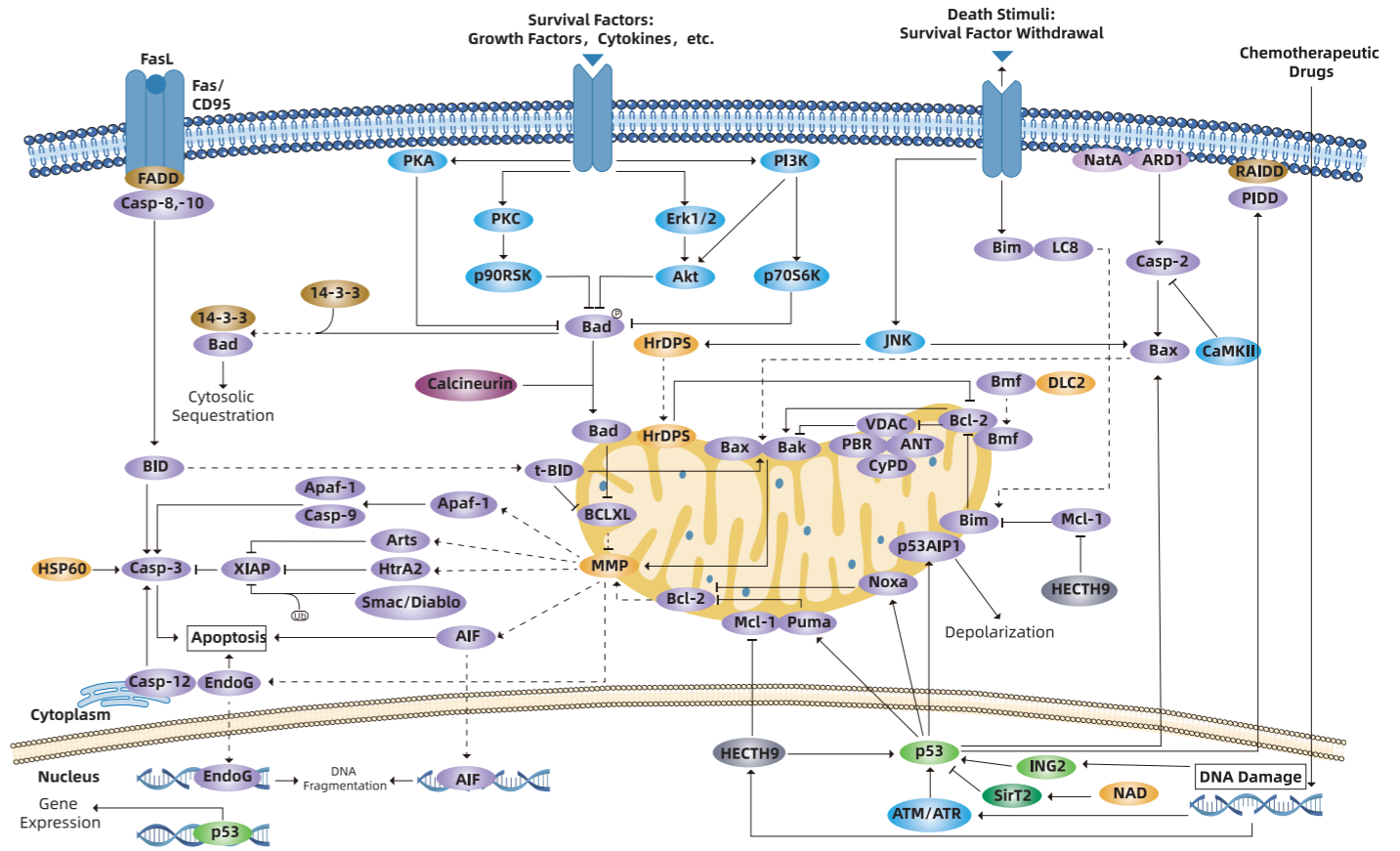
文献标题	客户单位	影响因子	产品名称	引用种属	文献应用
MLKL activates the cGAS-STING pathway by releasing mitochondrial DNA upon necroptosis induction (2025)	清华大学	16.6	Bax rabbit mAb ET1603-34	Ms	WB
Mito-Specific "Trojan Horse" Nanotherapy: Synergistic Antitumor Immunotherapy via Dual Modulation Mitochondrial Metabolism and Glycolysis (2025)	同济大学	16	HMGB1 rabbit mAb ET1601-2	Ms	IF-cell
A strategy for challenging tumorous bone regeneration by borosilicate bioactive glass boosting moderate magnetic hyperthermia (2025)	中国科学院深圳先进技术研究院	15.7	Bcl-2 rabbit mAb ET1702-53	H	WB
Mast cells boost anti-tumor potency of MAIT cells via inflammasome-dependent secretion of IL-18 (2025)	复旦大学	15.7	Gasdermin D(N terminal) rabbit mAb HA721144	H	WB
RKIP regulates bone marrow macrophage differentiation to mediate osteoclastogenesis and H-type vessel formation (2025)	浙江大学	15.7	Ubiquitin rabbit mAb ET1609-21	Ms	WB
p38 mediated ACSL4 phosphorylation drives stress-induced esophageal squamous cell carcinoma growth through Src myristoylation (2025)	郑州大学	14.7	ACSL1 mouse mAb HA601112	H	WB
FoxO3 controls cardiomyocyte proliferation and heart regeneration by regulating Sfrp2 expression in postnatal mice (2025)	暨南大学	14.7	Phospho-JNK1/2/3 (T183 + T183 + T221) rabbit mAb ET1609-42	Ms	WB
Single-cell transcriptome atlas of lamprey exploring Natterin- induced white adipose tissue browning (2025)	辽宁师范大学	14.7	Transferrin Receptor (CD71) rabbit mAb ET1702-06	Ms	WB
Visualizing bulk autophagy in vivo by tagging endogenous LC3B (2025)	浙江大学	14.6	Cleaved+pro Caspase-3 rabbit mAb ET1608-64	Ms	WB
Staphylococcus aureus reprograms CASP8 (caspase 8) signaling to evade cell death and Xenophagy (2025)	浙江大学	14.6	RIP rabbit mAb ET1701-79	Cw	WB
Engineered Mesenchymal Stem Cell-Derived Extracellular Vesicles Reverse Endothelial-Mesenchymal Transition in Atherosclerosis (2025)	重庆医科大学	14.5	Keap1 rabbit mAb HA721525	Ms	WB

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

结语

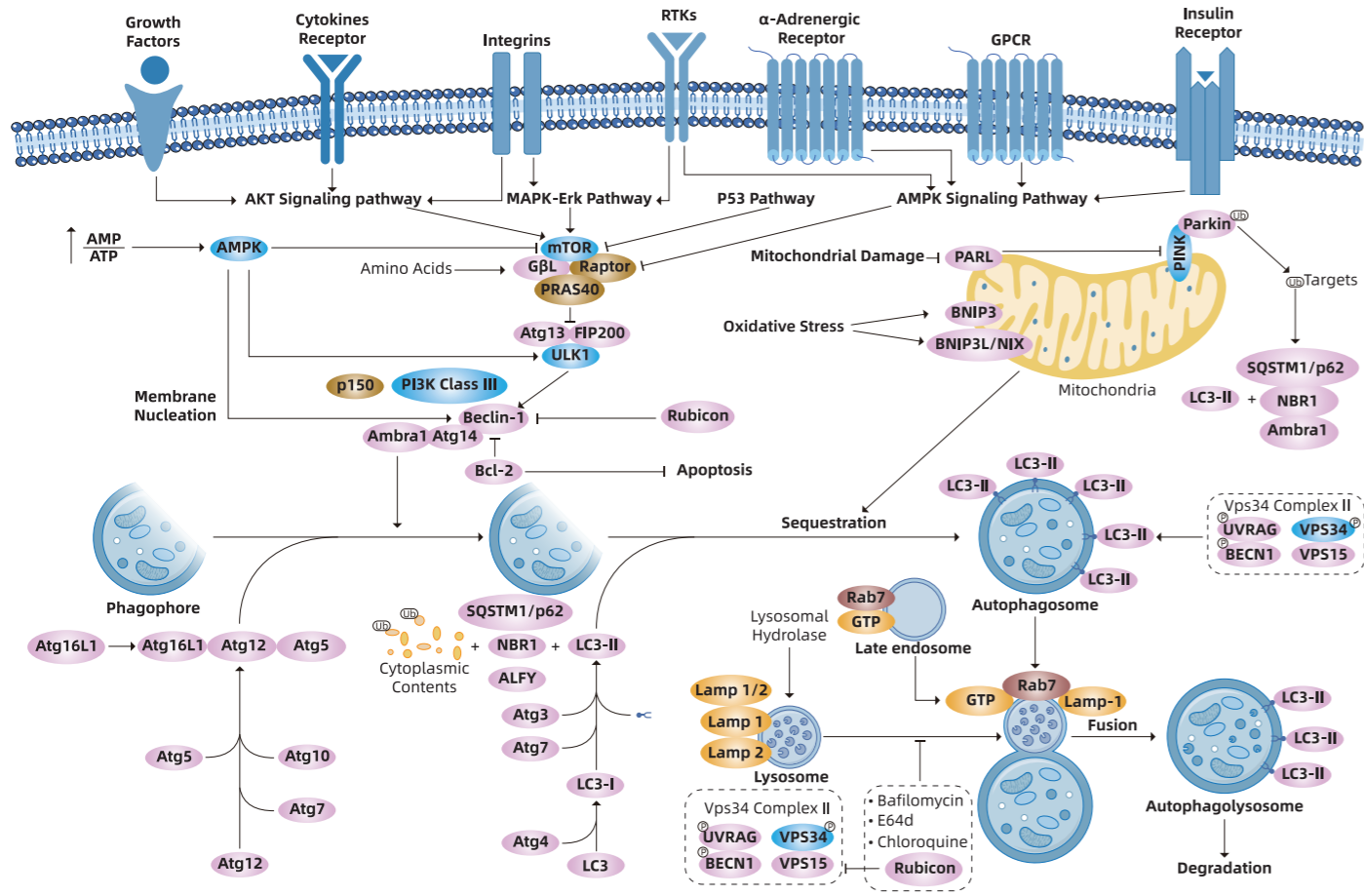
华安生物 (HUABIO) 凭借严格的抗体验证体系和重组兔单抗技术平台, 我们不仅提供针对关键剪切体和磷酸化位点的“功能状态”特异性抗体, 更通过预配型多因子检测试剂盒, 助力您在空间原位 (多重荧光免疫组化) 和定量水平 (ELISA) 上, 全面解析细胞命运决定的复杂机制。

附录一: 线粒体凋亡信号通路图



	Acetylases		Adaptor		Apoptosis / Autophagy regulator
	Deacetylase / Demethylase / Cytoskeletal Protein		Kinase		Other
	Phosphatase		Transcription Factor / Translation Factor / Cell Cycle Regulator		Ubiquitin / SUMO Ligase / Deubiquitinase
	Stimulatory Modification		Inhibitory Modification		Translocation Process
	phosphorylation		Ubiquitin		

附录二：细胞自噬信号通路图



	Adaptor		Apoptosis / Autophagy Regulator		GTPase / GAP / GEF / Methyltransferase or G-protein
	Other		Kinase		
	Inhibitory Modification		Transcriptional Modification		Stimulatory Modification
	phosphorylation		Ubiquitin		Phosphatidylethanolamine

