

## TRIM48 Knockout HEK293T Trizol Lysate

产品编号	产品名称	包装
L10884	TRIM48 Knockout HEK293T Trizol Lysate	500μl

### 产品简介:

- TRIM48 Knockout HEK293T Trizol Lysate (TRIM48基因敲除HEK293T细胞Trizol裂解液)是通过同时表达Cas9、目的基因sgRNA和puromycin抗性基因,并实现了目的基因CRISPR敲除的多克隆HEK293T细胞的Trizol裂解液。该细胞中目的基因的敲除已经通过T7E1法的验证。本产品可用于该目的基因敲除后其信号通路相关RNA表达的研究。
- 本Trizol裂解液源于可同时表达Cas9、目的基因sgRNA和puromycin抗性基因的慢病毒感染HEK293T细胞并经过puromycin筛选后获得的多克隆HEK293T细胞。制备该细胞的相应慢病毒的基因序列的关键图谱信息请参考图1。



图1. 可同时表达sgRNA、Cas9和puromycin抗性的慢病毒其基因序列的关键图谱信息。

- 该细胞中目的基因的敲除已经通过T7E1法的验证。
- 由于本细胞是通过CRISPR/Cas9技术获得的多克隆细胞,基于CRISPR/Cas9技术的特点,理论上平均有2/3的细胞发生移码突变而导致了目的基因的敲除,平均有1/3的细胞并未发生移码突变。很多情况下有约2/3的细胞发生目的基因的敲除,已经足以进行很多的目的基因的生物学功能的研究了。如果希望获得100%基因敲除的细胞,可以自行使用本产品筛选单克隆细胞,或者委托碧云天进行单克隆细胞株的筛选服务。
- 本Trizol裂解液用于实验时,建议同时选购无任何靶向的对照细胞Trizol裂解液Control Knockout HEK293T Trizol Lysate (L00031)或靶向GFP的对照Trizol裂解液GFP Knockout HEK293T Trizol Lysate (L00033)。
- 碧云天同时提供基于CRISPR/Cas9技术的TRIM48基因敲除的质粒(L10880 pLenti-TRIM48-sgRNA)、慢病毒(L10881 TRIM48 Knockout Lentivirus)、HEK293T细胞(L10882 TRIM48 Knockout HEK293T Cells)、HEK293T敲除细胞的RIPA裂解液(L10883 TRIM48 Knockout HEK293T RIPA Lysate)、HEK293T敲除细胞的Trizol裂解液(L10884 TRIM48 Knockout HEK293T Trizol Lysate)等产品,具体请在碧云天网站查询或在本产品网页点击相应产品。
- TRIM48基因的基本信息如下:

Species	Gene Symbol	Gene ID	GenBank Accession	Transcript
Human	TRIM48	79097	BC001862	NM_024114

About the gene	
Official Symbol	TRIM48
Previous Symbol	-
Official Full Name	tripartite motif containing 48
Synonyms	RNF101
Location	11q11
Gene Type	protein-coding gene
Uniprot ID	Q8IWZ4
Pathway/Library	Ubiquitin Ligases Genes Library
Gene Summary	Tripartite motif (TRIM) proteins have been increasingly appreciated as important antiviral factors that suppress the replication of a wide range of RNA and DNA viruses. TRIM proteins inhibit viral replication by either directly targeting viral components or modulating innate immune responses that result in antiviral gene expression. For example, TRIM19 (also known as promyelocytic leukemia protein (PML)) restricts multiple RNA viruses and DNA viruses, including herpesviruses, by organizing PML nuclear bodies. Several TRIM proteins that suppress KSHV reactivation. Tripartite motif 48 (TRIM48) as a candidate E3 ubiquitin ligase that regulates ASK1. TRIM48 has a RING-finger motif with E3 ubiquitin ligase activity and belongs to the TRIM family. TRIM family is characterized by three conserved domains or motifs (a RING-finger motif, a B-box domain, and a coiled-coil domain), whereas TRIM48 lacks the

	coiled-coil domain. The TRIM family comprises nearly 100 members in humans, and several of these proteins have been reported to function as E3 ubiquitin ligases that mediate a wide range of biological functions, such as cell death and innate immune responses. Several TRIM genes in the TRIM family are conserved only in primates (humans and African apes). These genes arose during primate evolution through segmental duplication. Notably, TRIM48 is one of the 7 human-specific genes. TRIM48 promotes ASK1 activation through ubiquitination-dependent degradation of a negative regulator of ASK1 activation, protein arginine methyltransferase 1 (PRMT1). Knocking down TRIM48 suppressed oxidative-stress-induced cell death mediated by ASK1, and the additional knockdown of PRMT1 reversed this suppression of cell death. Furthermore, forced expression of TRIM48 impaired xenograft tumor growth, accompanied by increased cell death.
--	--

**包装清单:**

产品编号	产品名称	包装
L10884	TRIM48 Knockout HEK293T Trizol Lysate	500µl
—	说明书	1份

**保存条件:**

-20°C保存, 至少6个月有效; -80°C保存, 至少一年有效。

**注意事项:**

- 碧云天拥有sgRNA序列的知识产权, 如果需要sgRNA序列, 请在订购后发送邮件向info@beyotime.com索取。sgRNA序列信息与本产品, 未经碧云天书面许可不得用于任何商业用途, 也不得移交给订货人所在实验室外的任何个人或单位。使用者在发表研究论文或结果时, 应注明来源。
- 对于非目录产品的CRISPR基因敲除细胞Trizol裂解液的定制, 可联系碧云天技术服务service@beyotime.com。
- 本产品仅限于专业人员的科学研究用, 不得用于临床诊断或治疗, 不得用于食品或药品, 不得存放于普通住宅内。
- 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

**使用说明:**

1. 本细胞Trizol裂解液中含有不少于 $1 \times 10^6$ 个细胞。
2. 按照碧云天的Trizol (总RNA抽提试剂) (R0016)中的使用说明进行RNA的抽提: <https://www.beyotime.com/product/R0016.htm>; 或按照Invitrogen™的TRIzol™ Reagent的使用说明进行RNA的抽提, 后续可以用于反转录、qRT-PCR、NGS等各种常见用途。

**相关产品:**

产品编号	产品名称	包装
L00031	Control Knockout HEK293T Trizol Lysate	500µl
L00033	GFP Knockout HEK293T Trizol Lysate	500µl
D7166	BeyoRT™ cDNA第一链合成试剂盒(RNase H-)	10次
D7168	BeyoRT™ II cDNA第一链合成试剂盒(RNase H-)	20/100/500次
D7170	BeyoRT™ II cDNA合成试剂盒(with gDNA Eraser)	20/100/500次
D7178	BeyoRT™ III cDNA第一链合成试剂盒	20/100/500次
D7180	BeyoRT™ III cDNA合成试剂盒 (with gDNA EZeraser)	20/100/500次
D7182	BeyoRT™ III cDNA第一链合成预混液(5X)	20/100/500次
D7185	BeyoRT™ III cDNA合成预混液(5X) (with gDNA EZeraser)	20/100/500次
D7260	BeyoFast™ SYBR Green qPCR Mix (2X)	1/5/25ml
D7262	BeyoFast™ SYBR Green qPCR Mix (2X, Low ROX)	1/5/25ml
D7265	BeyoFast™ SYBR Green qPCR Mix (2X, High ROX)	1/5/25ml
D7268	BeyoFast™ SYBR Green One-Step qRT-PCR Kit	100/500次
D7271	BeyoFast™ Probe qPCR Mix (2X)	1/5/25ml
D7272	BeyoFast™ Probe qPCR Mix (2X, Low ROX)	1/5/25ml
D7273	BeyoFast™ Probe qPCR Mix (2X, High ROX)	1/5/25ml
D7277	BeyoFast™ Probe One-Step qRT-PCR Kit	100/500次
R0011	Beyozol (总RNA抽提试剂)	100ml
R0016	Trizol (总RNA抽提试剂)	100ml

