



碧云天生物技术/Beyotime Biotechnology  
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## TK1/Thymidine Kinase 1 Rabbit Polyclonal Antibody

| 产品编号   | 产品名称  | 包装   |
|--------|---|------|
| AF8172 | TK1/Thymidine Kinase 1 Rabbit Polyclonal Antibody | 50μl |

### 产品简介:

| 来源     | 用途     | 交叉反应性 | 理论分子量 | 实际分子量 |
|--------|--------|-------|-------|-------|
| Rabbit | WB, IF | H, M  | 25kDa | 30kDa |

WB, Western blot; IP, Immunoprecipitation; IF, Immunofluorescence; IHC, Immunohistochemistry; ICC, Immunocytochemistry; FC, Flow Cytometry; ChIP, Chromatin Immunoprecipitation Assay; ChIP-seq, ChIP-sequencing.

H, Human; M, Mouse; R, Rat; C, Chicken; Cw, Cow; Dg, Dog; Gp, Guinea pig; Hm, Hamster; Hr, Horse; Mk, Monkey; Pg, Pig; Rb, Rabbit; S, Sheep; Z, Zebrafish; All, all species expected.

- 配套提供了 Western 一抗稀释液, 可以用于 Western 检测或其它适当用途时的一抗稀释。
- 建议抗体使用时的稀释比例如下(实际使用时需根据抗原水平的高低作适当调整):

| WB           | IP | IF         | IHC | ICC | FC | ChIP | ChIP-seq |
|--------------|----|------------|-----|-----|----|------|----------|
| 1:500-1:2000 | -  | 1:50-1:200 | -   | -   | -  | -    | -        |

- 抗体详细信息如下:

| About this Antibody |   |
|---------------------|---|
| Name                | TK1/Thymidine Kinase 1 Rabbit Polyclonal Antibody   |
| Category            | Rabbit Polyclonal Antibody (pAb); Primary antibody  |
| Isotype             | IgG   |
| Purification method | Affinity purification   |
| Positive samples    | Mouse liver, Mouse spleen, Mouse ovary  |
| Cellular location   | Cytoplasm   |
| Customer validation | -   |
| About the Immunogen |   |
| Immunogen           | Recombinant fusion protein of human TK1 (NP_003249.3).  |
| Sequence            | MSCINLPTVLPGPSKTRGQIQVILGPMFSGKSTELMRRVRRFQIAQYKCLVIKYAKDTRYSSSFCT<br>HDRNTMEALPACLLRDVAQEALGVAVIGIDEGQFFPDIVEFCEAMANAGKTVIVAALDGTFRK<br>PFGAILNLVPLAESVVKLTAVCMCFREAAAYTKRLGTEKEVEVIGGADKYHVCRLCYFKKASG<br>QPAGPDNKENCVPVGPGEAVAARKLAFAPQQILQCSPAN   |
| Gene ID             | 7083  |
| Swiss Prot          | P04183  |
| Synonyms            | TK1; TK2; thymidine kinase 1  |
| Category            | Other Metabolism: Pyrimidine metabolism   |
| Background          | Thymidine kinases play a critical role in generating the DNA synthetic precursor deoxythymidine triphosphate (dTTP) by catalyzing the phosphotransfer of phosphate from ATP to deoxythymidine (dT) and thymidine (T) in the cell. There are two known thymidine kinases, cytoplasmic thymidine kinase 1 (TK1) and mitochondrial thymidine kinase 2 (TK2). Unlike TK2, which is not modulated by the cell cycle, TK1 expression and activity is regulated in a cell cycle-dependent manner, accumulating during G1-phase to peak levels in S-phase before being degraded prior to cell division. Stability, but not activity, may be regulated via phosphorylation of TK1 at Ser13 by Cdc2 and/or Cdk2, but the precise mode of regulation remains elusive. These observations indicate that TK1 might be a useful marker of cell proliferation; however, recent studies have shown that TK1 plays a more significant role in the DNA damage response. Genotoxic stress promotes increased TK1 expression and kinase activity resulting in reduced cellular apoptosis and enhanced DNA repair efficiency. More importantly, numerous studies show that TK1 expression and activity are upregulated during neoplasia and disease progression in humans, and increased serum levels of TK1 correlate with poor prognosis and decreased survival in patients with |

various types of advanced tumors.

### 包装清单:

| 产品编号   | 产品名称  | 包装   |
|--------|---|------|
| AF8172 | TK1/Thymidine Kinase 1 Rabbit Polyclonal Antibody | 50μl |
| AZ050  | Western一抗稀释液                                      | 50ml |
| —      | 说明书   | 1份   |

### 保存条件:

TK1/Thymidine Kinase 1 Rabbit Polyclonal Antibody -20°C保存, Western一抗稀释液-20°C或4°C保存, 一年有效。Western一抗稀释液优先推荐4°C保存, 长期不使用可以考虑-20°C保存, 但冻融可能会导致出现轻微的浑浊和少量不溶物。

### 注意事项:

- 如果本抗体用于Western blot (WB)、免疫荧光(IF)、免疫细胞化学(ICC)等实验, 请注意回收使用过的稀释抗体。回收的抗体通常至少可以重复使用5-10次。稀释后的抗体, 包括已经使用过的稀释抗体, 请4°C保存。
- 回收后重复使用的抗体, 使用方法同新鲜稀释的抗体。如果在重复使用过程中发现抗体出现轻微混浊现象, 可以10,000g离心1-3分钟, 取上清用于后续检测。如果回收的抗体出现明显的絮状物或长霉长菌等情况, 则可以考虑废弃该抗体。
- 提供的Western一抗稀释液也可以用于免疫荧光(IF)、免疫组化(IHC)、免疫细胞化学(ICC)等适当用途。如果希望获得最佳的检测效果, 请考虑使用上述检测专用的一抗稀释液。
- 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:

请根据抗体的实际用途选择相应的使用方法。

#### 1. Western检测:

- 按照推荐的稀释比例用碧云天提供的Western一抗稀释液稀释抗体。
- 把经过封闭的蛋白膜与稀释好的一抗4°C缓慢摇动过夜或室温缓慢摇动2小时, 确保稀释的抗体至少能在摇动的瞬间覆盖蛋白膜。
- 回收稀释的一抗, 4°C保存以备下次继续使用。
- 按照Western的实验步骤进行后续的洗涤、二抗孵育、洗涤和检测等操作。具体操作可以参考如下网页:  
<http://www.beyotime.com/support/western.htm>

#### 2. 免疫染色:

可以使用碧云天生产的免疫染色一抗稀释液(P0103)稀释抗体, 使用后注意回收稀释好的一抗, 具体操作可以参考如下网页: <http://www.beyotime.com/support/immunol-staining.htm>

#### 3. 其它实验操作请自行参考适当的protocol进行。

#### 4. 代表性图片:

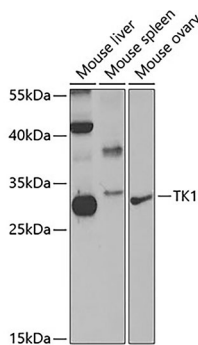


Fig. 1. Western blot analysis of extracts of various cell lines, using TK1 antibody at 1:1000 dilution. Secondary antibody: HRP-labeled Goat Anti-Rabbit IgG(H+L) (A0208) at 1:1000 dilution. Lysates/proteins: 25μg per lane. Blocking buffer: QuickBlock™ Blocking Buffer (P0231).

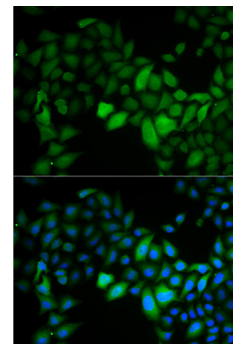


Fig. 2. Immunofluorescence analysis of HeLa cells using TK1 antibody. Blue: DAPI for nuclear staining.

### 相关产品:

| 产品编号  | 产品名称                     | 包装 |
|-------|--------------------------|----|
| E6001 | MiniProGel™蛋白制胶与电泳系统(4胶) | 1套 |
| E6005 | MiniProGel™蛋白制胶与电泳系统(2胶) | 1套 |

|               |                                   |             |
|---------------|-----------------------------------|-------------|
| E6050         | MiniBlot™蛋白转膜系统                   | 1套          |
| E6150         | MiniProGel™蛋白制胶、电泳与转膜系统(2胶/2膜)    | 1套          |
| E6155         | MiniProGel™蛋白制胶、电泳与转膜系统(4胶/2膜)    | 1套          |
| E6159         | MiniProGel™蛋白制胶、电泳与转膜系统(4胶/4膜)    | 1套          |
| E6080         | BeyoPower™中电流电源(300V/600mA/100W)  | 1套          |
| E6085         | BeyoPower™高电流电源(300V/2000mA/200W) | 1套          |
| E6600         | TissueMaster™手持式组织研磨仪             | 1套          |
| EI600         | BeyoImager™ 600化学发光成像系统           | 1套          |
| FFP24         | PVDF膜(进口分装, 6.6×8.5cm, 0.2μm)     | 20张/包装      |
| FFP32         | PVDF膜(进口分装, 6.6×8.5cm, 0.45μm)    | 20张/包装      |
| FFP51         | 转印滤纸(7.5×10cm)                    | 100张/包装     |
| FFX050-FFX055 | Western洗膜盒                        | 1个/包装       |
| P0006         | Bradford蛋白浓度测定试剂盒                 | 1000次       |
| P0012         | BCA蛋白浓度测定试剂盒                      | 500次        |
| P0012A        | SDS-PAGE凝胶配制试剂盒                   | 可制30-50块胶   |
| P0012AC       | SDS-PAGE凝胶快速配制试剂盒                 | 可制30-50块胶   |
| P0013         | Western及IP细胞裂解液                   | 100ml       |
| P0013B-P0013D | RIPA裂解液(强、中、弱)                    | 100ml       |
| P0014A/P0014B | SDS-PAGE电泳液(Tris-Gly, Powder)     | 1L/10L      |
| P0014C/P0014D | SDS-PAGE电泳液(Tris-Gly, 10X)        | 100ml/500ml |
| P0015/P0015L  | SDS-PAGE蛋白上样缓冲液(5X)               | 2ml/15ml    |
| P0015F        | SDS-PAGE蛋白上样缓冲液(6X)               | 2ml         |
| P0017F        | BeyoBlue™考马斯亮蓝超快染色液               | 250ml       |
| P0018A        | BeyoECL Star (特超敏ECL化学发光试剂盒)      | 100ml/500ml |
| P0018F        | BeyoECL Moon (极超敏ECL化学发光试剂盒)      | 100ml/500ml |
| P0018S/P0018M | BeyoECL Plus (超敏ECL化学发光试剂盒)       | 100ml/500ml |
| P0021A        | Western转膜液                        | 1L          |
| P0021S        | PVDF膜浸润活化液                        | 250ml       |
| P0022         | 丽春红染色液                            | 120ml       |
| P0023A        | Western一抗稀释液                      | 100ml/500ml |
| P0023B        | Western封闭液                        | 100ml/500ml |
| P0023C        | Western洗涤液                        | 250ml       |
| P0023D        | Western二抗稀释液                      | 100ml/500ml |
| P0025         | Western一抗二抗去除液                    | 250ml       |
| P0059         | Recombinant 16-Tag Protein        | 200μl/1ml   |
| P0066         | 预染蛋白质分子量标准(19-117kD)              | 200μl       |
| P0068         | 彩色预染蛋白质分子量标准(10-180kD)            | 200μl       |
| P0071         | BeyoColor™彩色预染蛋白分子量标准(6.5-270kD)  | 200μl       |
| P0075         | BeyoColor™彩色预染蛋白分子量标准(10-170kD)   | 200μl       |
| P0078         | BeyoColor™彩色预染蛋白分子量标准(15-120kD)   | 200μl       |
| P0095         | 免疫染色通透液(Saponin)                  | 100ml/500ml |
| P0096         | 免疫染色通透液(Triton X-100)             | 100ml/500ml |
| P0097         | 免疫染色强力通透液                         | 100ml/500ml |
| P0098         | 免疫染色固定液                           | 100ml/500ml |
| P0099         | 4%多聚甲醛固定液                         | 100ml/500ml |
| P0102         | 免疫染色封闭液                           | 100ml       |
| P0103         | 免疫染色一抗稀释液                         | 100ml       |
| P0106         | 免疫染色洗涤液                           | 250ml       |
| P0108         | 免疫荧光染色二抗稀释液                       | 100ml       |
| P0220-P0235   | Quickblock™封闭液                    | 100ml       |

|             |  |                  |
|-------------|--|------------------|
| P0252       | QuickBlock™ Western封闭液                   | 100ml/500ml      |
| P0256       | QuickBlock™ Western一抗稀释液                 | 100ml/500ml      |
| P0258       | QuickBlock™ Western二抗稀释液                 | 100ml/500ml      |
| P0260       | QuickBlock™免疫染色封闭液                       | 100ml            |
| P0262       | QuickBlock™免疫染色一抗稀释液                     | 100ml            |
| P0265       | QuickBlock™免疫荧光染色二抗稀释液                   | 100ml            |
| P0267       | QuickBlock™免疫组化染色二抗稀释液                   | 100ml            |
| P0280       | InstantView™ SDS-PAGE蛋白染色及上样缓冲液(5X)      | 1ml              |
| P0050-P0058 | BeyoGel™ SDS-PAGE预制胶(Tris-Gly, 12孔)      | 10块/50块          |
| P0448-P0472 | BeyoGel™ Plus PAGE预制胶(Tris-Gly, 10孔/15孔) | 10块/50块          |
| P0501-P0528 | BeyoGel™ Plus PAGE预制胶(Hepes, 10孔/15孔)    | 10块/50块          |
| P0552       | BeyoGel™ Plus SDS-PAGE Hepes电泳液(20X)     | 100ml/500ml      |
| P0670-P0678 | SDS-PAGE下层胶预混液                           | 250ml/500ml      |
| P0683       | SDS-PAGE上层胶预混液                           | 250ml/500ml      |
| P0686-P0695 | SDS-PAGE凝胶超快速配制试剂盒                       | 可制30-50块胶        |
| P1005-P1031 | 蛋白酶抑制剂混合物(50X/100X)                      | 1ml/5ml          |
| P1045-P1066 | 蛋白酶磷酸酶抑制剂混合物(50X)                        | 1ml/2ml/5ml/10ml |
| P1081-P1097 | 磷酸酶抑制剂混合物(50X)                           | 2ml/10ml         |
| P1112/P1113 | 去乙酰化酶抑制剂混合物(100X)                        | 1ml/5ml          |
| R0121       | AllProtect™动物组织核酸、蛋白稳定保存液                | 25ml/100ml       |

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