

## MTT细胞增殖及细胞毒性检测试剂盒

产品编号	产品名称	包装
C0009	MTT细胞增殖及细胞毒性检测试剂盒	500次

### 产品简介:

- MTT细胞增殖及细胞毒性检测试剂盒(MTT Cell Proliferation and Cytotoxicity Assay Kit)是一种非常经典的细胞增殖和细胞毒性检测试剂盒, 被广泛应用于细胞增殖和细胞毒性的检测。
- MTT可以被线粒体内的一些脱氢酶还原生成结晶状的深紫色产物formazan (图1A)。在特定溶剂存在的情况下, 可以被完全溶解(图1B)。然后通过酶标仪可以测定570nm波长附近的吸光度(图2)。细胞增殖越多越快, 则吸光度越高; 细胞毒性越大, 则吸光度越低。

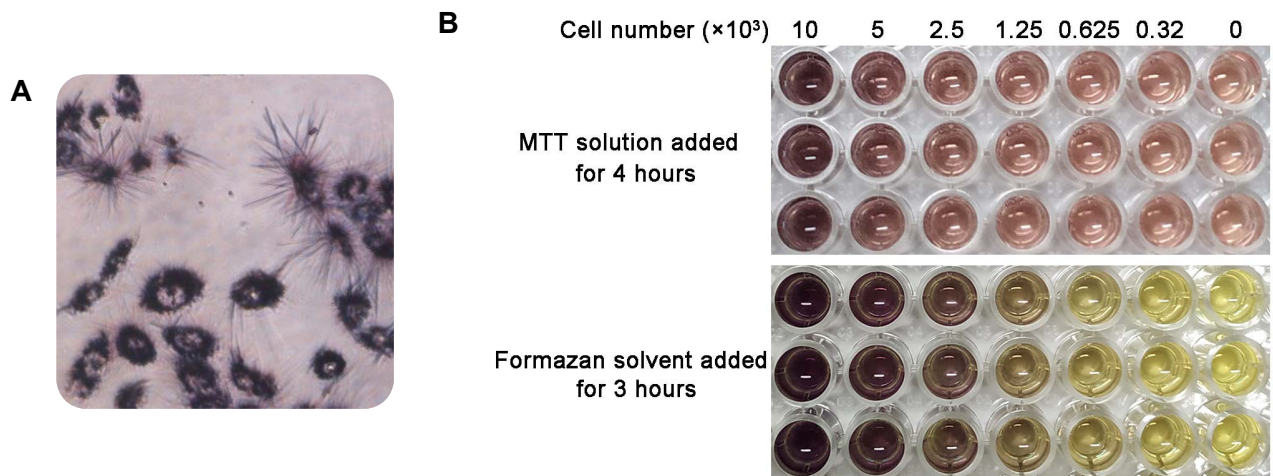


图1. MTT细胞增殖及细胞毒性检测试剂盒实测效果图。A. HeLa细胞加入使用本试剂盒配制的MTT溶液, 在细胞培养箱内孵育4小时, 显微镜下可见大量结晶状的深紫色产物formazan生成。B. 不同数量HeLa细胞在MTT溶液(MTT solution)加入后4小时的效果图(上图)及深紫色产物formazan生成后加入Formazan溶解液(Formazan solvent), 充分溶解后的效果图(下图)。

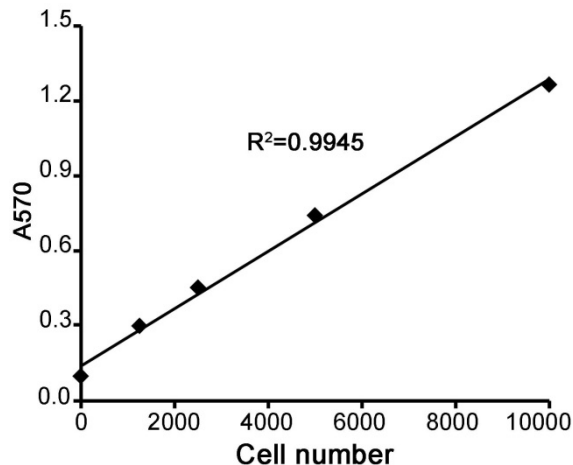


图2. 本试剂盒检测不同数量HeLa细胞的效果图。不同的检测条件下, 实际读数会因标准品的配制、检测仪器等的不同而存在差异, 图中数据仅供参考。

- 本试剂盒采用了独特的Formazan溶解液配方, 无需去除原有的培养液, 可以直接加入Formazan溶解液溶解formazan。从而避免了由于去除培养液时formazan被部分去除而引起的误差。
- 本试剂盒本底低, 灵敏度高, 线性范围宽, 使用方便。
- 碧云天各种细胞增殖和细胞毒性检测试剂盒的比较和选择, 请参考<http://www.beyotime.com/support/cell-proliferation.htm>。
- 本试剂盒可以测定500个样品。

## 包装清单:

产品编号	产品名称	包装
C0009-1	MTT	25mg
C0009-2	MTT溶剂	5ml
C0009-3	Formazan溶解液	55ml
—	说明书	1份

## 保存条件:

4°C或-20°C保存, MTT需避光保存, 一年有效; MTT配制成溶液后需-20°C避光保存; Formazan溶解液也可以室温保存。

## 注意事项:

- 由于使用96孔板进行检测, 如果细胞培养时间较长, 一定要注意蒸发的问题。一方面, 由于96孔板周围一圈最容易蒸发, 可以采取弃用周围一圈的办法, 改加PBS, 水或培养液; 另一方面, 可以把96孔板置于靠近培养箱内水源的地方, 以缓解蒸发。
- MTT溶剂在低温情况下会凝固, 使用前请室温放置或20-25°C水浴温育片刻至全部融解后使用。
- MTT配制成溶液后为黄色, 需避光保存, 长时间光照会导致失效。当颜色变为灰绿色时, 请勿使用。MTT溶液在4°C、冰浴等较低温度情况下会凝固, 可以20-25°C水浴温育片刻至全部融解后使用。
- Formazan溶解液结冻或产生沉淀时可以室温或37°C水浴解以促溶解, 并且必须在全部溶解并混匀后使用。
- 加入Formazan溶解液后请适当轻轻混匀, 但须注意避免产生泡沫。
- 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. MTT溶液的配制: 用5ml MTT溶剂溶解25mg MTT, 配制成5mg/ml的MTT溶液。配制后即可使用, 或直接-20°C避光保存, 也可以根据需要适当分装后-20°C避光保存。
2. 通常细胞增殖实验每孔加入100微升2000个细胞, 细胞毒性实验每孔加入100微升5000个细胞(具体每孔所用的细胞的数目, 需根据细胞的大小, 细胞增殖速度的快慢等决定)。按照实验需要, 进行培养并给予0-10微升特定的药物刺激。
3. 每孔加入10微升MTT溶液, 在细胞培养箱内继续孵育4小时。
4. 每孔加入100微升Formazan溶解液, 适当混匀, 在细胞培养箱内再继续孵育。直至在普通光学显微镜下观察发现formazan全部溶解。通常37°C孵育3-4小时左右, 紫色结晶会全部溶解。如果紫色结晶较小较少, 溶解的时间会短一些。如果紫色结晶较大较多, 溶解的时间会长一些, 此时为加速溶解可以适当振摇数次。
5. 在570nm测定吸光度(可参考图2)。如无570nm滤光片, 可以使用560-600nm的滤光片。

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Version 2018.08.15