

GUS 染色液(即用型)

产品简介:

GUS(β -Galactosidase)基因是存在于 E.coli 等一些细菌基因组内的编码 β -葡萄糖苷酸酶的一种水解酶,该基因常作为融合标记用于植物转基因分析和调控研究中。GUS 受体基因系统有表达 E.coli GUS 酶的稳定性和在植物内的低活性,绝大多数植物没有检测到葡萄糖苷酸酶的背景活性,以 β -葡萄糖苷酸酯类物质为底物,其反应产物可用多种方法检测出来。5-Bromo-chloro-3-indolyl β -D-glucuronide, cyclohexylammonium salt(简称为 X-Gluc 或 X-GlcA)分子量为 521.8, CAS 号为 18656-96-7,是检测大肠杆菌中 GUS 基因的底物,可快速检测植物中 GUS 基因融合标记。

Leagene GUS 染色液(即用型)又称 β -葡萄糖苷酶基因染色试剂盒(β -Galactosidase Reporter Gene Staining Kit)简称为 GUS 染色液,其染色原理是适宜的反应条件下 β -葡萄糖苷酶(GUS)可将 X-Gluc 水解成蓝色物质,该物质不溶解于转基因的细胞核组织中的靛蓝物质,具有 GUS 活性的部位或位点呈现蓝色或蓝色斑点,可用肉眼或显微镜观察到,GUS 染色液可用于生物化学活性分析、免疫分析以及组织和细胞的组织化学染色,多用于转基因植物的 GUS 基因表达分析,该即用型试剂比常规 GUS 染色液操作简便。该试剂仅用于科研领域,不适用于临床诊断或其他用途。

产品组成:

名称	编号	DP0013 50ml	DP0013 100ml	Storage
试剂(A): X-Gluc		1 支	2 支	-20°C 避光
试剂(B): X-Gluc Solution		1ml	2×1ml	RT 避光
试剂(C): GUS Buffer		50ml	100ml	4°C 避光
使用说明书		1 份		

自备材料:

- 1、70%乙醇、去离子水
- 2、小瓶或多孔板、显微镜

操作步骤(仅供参考):

- 1、配制 X-Gluc 溶液(50x): 取 1ml X-Gluc Solution 完全加至 1 支 X-Gluc 中,充分溶解,即获得 X-Gluc 溶液(50x)。配制好的 X-Gluc 溶液(50x)-20°C保存,1 个月有效。
- 2、配制 X-Gluc 染色液: 取适量的 X-Gluc 溶液(50x)和 GUS Buffer,按 1: 49 比例充分混

- 匀,配制成 X-Gluc 染色液,如取 0.2ml X-Gluc 溶液(50x)加入到 9.8ml GUS Buffer 中,即配成 10ml GUS 染色液,该染色液最好现用现配,短期贮存可以 4℃保存 3 天。
- 3、取适量待染叶片等组织加入适量 GUS 染色液使其完全浸没组织。
 - 4、37℃孵育 1~24h,随着孵育时间的延长,蓝色渐渐出现,当表达量较高时 GUS 活性的部位或位点呈现蓝色或蓝色斑点。
 - 5、用 70%乙醇脱去样本的叶绿素,一般样本浸没于乙醇 1~3h,至阴性对照呈白色。如有必要可重复该脱色步骤,以便彻底清除叶绿素;样本保存于乙醇中,可用肉眼或普通光学显微镜下观察,白色背景上的蓝色即为 GUS 表达位点。

注意事项:

- 1、GUS 染色液最好冰上配制,现配现用。配制后用不完可-20℃避光保存,如果溶液由无色变为红色或紫红色应弃用。
- 2、由于组织特异性等原因,蓝色颜色反应可能不完全一致,应注意摸索具体实验条件。
- 3、拟南芥的根、花和叶片以及烟草幼苗根就可直接染色;烟草和马铃薯这些植物的茎和叶须在染色前切成薄片(1~3mm)。
- 4、当操作大的组织和样品时可以选择真空渗入法来帮助底物和酶渗入细胞,建议采购常规 GUS 染色液(Leagene DP0011)。
- 5、GUS 染色液(即用型)染色灵敏度较好,但有时会出现非特异性反应(即假阳性),如非特异性反应较明显,建议采购常规 GUS 染色液(Leagene DP0011)。
- 6、试剂开封后请尽快使用,以防影响后续实验效果。

有效期: 12 个月有效。低温运输,按要求保存。

相关产品:

产品编号	产品名称
CC0130	胰蛋白酶-EDTA 溶液(0.25%:0.02%)
CS0001	ACK 红细胞裂解液(ACK Lysis Buffer)
DC0032	Masson 三色染色液
DZ2011	环保浸蜡脱蜡透明液
NR0003	Lezol(总 RNA 提取试剂)
TC0699	植物总糖和还原糖检测试剂盒(DNS 比色法)
TO1013	丙二醛(MDA)检测试剂盒(TBA 比色法)

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