

RIPA 裂解液 (RIPA Lysis Buffer) C1053

描述: RIPA 裂解液(RIPA Lysis Buffer)对动物细胞胞膜、胞浆、胞核成分均有较强裂解作用,是经典和最常用的细胞组织快速裂解液。使用 RIPA 裂解缓冲液制备用于 Western 特别是用于免疫共沉淀的裂解产物已经是一种首选的标准操作,也适用于大部分抗原表位检测,特别是免疫共沉淀等实验。

组成: 100 ml RIPA 裂解缓冲液。

成分: 50 mM Tris-HCl (pH 7.4), 150 mM NaCl, 1% NP-40, 0.1% SDS.

储存: 4 °C 保存 12 个月有效

制备细胞裂解产物:

1. 800g 4°C 离心 5 分钟收集培养细胞,估计细胞离心后的体积(PCV, 10^6 cells= $\sim 20 \mu\text{l}$, 10^7 cells= $\sim 100 \mu\text{l}$ PCV);
2. 每 50~100 μl PCV 加入 5 倍体积 RIPA 裂解缓冲液(250~500 μl),冰浴放置 10 分钟,并每隔 5 分钟在漩涡混合仪上振荡 30 秒;
3. 12000g 4°C 离心 10 分钟,将上清转移到新的离心管中,即得细胞总蛋白产物。

注意: 如所得蛋白产物较为粘稠,可先 95°C 加热 5 分钟,迅速冰浴 5 分钟,再进行步骤 3

制备组织裂解产物:

1. 取 50-100 mg 组织在冰上剪成碎片,用预冷的 PBS 洗涤 2 次离心弃去 PBS;
2. 加入 0.5-1 ml 预冷 RIPA 裂解缓冲液;
3. 4°C 用玻璃匀浆器匀浆 20-40 次,直到 95% 的细胞被破碎,然后在冰浴中放置 10 分钟,并每隔 5 分钟在漩涡混合仪上振荡 30 秒;
4. 12000g 4°C 离心 10 分钟,将上清转移到新的离心管中,即得组织总蛋白产物。

注意: 如所得蛋白产物较为粘稠,可先 95°C 加热 5 分钟,迅速冰浴 5 分钟,再进行步骤 4

说明:

1. 转移上清液时不要吸入底部的沉淀物;
2. 在做免疫沉淀或免疫共沉淀时最好在实验前进行蛋白提取,避免某些不稳定蛋白的降解;
3. RIPA 裂解缓冲液中未加入蛋白酶抑制剂,用户可自行选择添加。

使用我司 RIPA 裂解缓冲液发表 SCI 论文已达数百篇,部分文章列表如下,供参考:

- 1、Corporation H P. Secernin-1 Contributes to Colon Cancer Progression through Enhancing Matrix Metalloproteinase-2/9 Exocytosis.[J]. Disease Markers, 2015.
- 2、Corporation H P. Cytotoxic Effects of Biosynthesized Zinc Oxide Nanoparticles on Murine Cell Lines[J]. Evidence-based Complementary and Alternative Medicine : ECAM, 2015, 2015.

- 3、Corporation H P. Protective effects of N-acetylcysteine in concanavalin a-induced hepatitis in mice.[J]. Mediators Inflamm, 2015.
- 4、Corporation H P. Blockade of lysosomal acid ceramidase induces GluN2B-dependent Tau phosphorylation in rat hippocampal slices.[J]. Neural Plasticity, 2014,
- 5、J. V, T. P, Y. L, et al. Androgen Receptor Activation[J]. Cellular Physiology & Biochemistry, 2014, 33(6):1911-1920.
- 6、Yang K, Song Y, Tang Y, et al. mAChRs activation induces epithelial-mesenchymal transition on lung epithelial cells.[J]. BMC Pulmonary Medicine, 2014, 14(4):417-419.
- 7、Peng Y, Guo J, Liu Y, et al. MicroRNA-34A inhibits the growth, invasion and metastasis of gastric cancer by targeting PDGFR and MET expression[J]. Bioscience Reports, 2014, 34(2):247-256.
- 8、Lee S Y. Nonthermal plasma induces apoptosis in ATC cells: involvement of JNK and p38 MAPK-dependent ROS.[J]. Yonsei Medical Journal, 2014, 55(6).
- 9、Jeong J, Conboy M J, Conboy I M. Pharmacological inhibition of myostatin/TGF- β receptor/pSmad3 signaling rescues muscle regenerative responses in mouse model of type 1 diabetes[J]. Acta Pharmacologica Sinica, 2013, 34:1052-1060.
- 10、Vaziri N D, Yuan J, Nazertehrani S, et al. Chronic Kidney Disease Causes Disruption of Gastric and Small Intestinal Epithelial Tight Junction.[J]. American Journal of Nephrology, 2013, 38(2):99-103.
- 11、Li Y, Sun Y, Liu F, et al. Norcantharidin Inhibits Renal Interstitial Fibrosis by Blocking the Tubular Epithelial-Mesenchymal Transition[J]. Plos One, 2013, 8(6):e66356.
- 12、Kashyap M, Kawamorita N, Tyagi V, et al. Down-regulation of nerve growth factor expression in the bladder by antisense oligonucleotides as new treatment for overactive bladder.[J]. Journal of Urology, 2013, 190(2):757-764.
- 13、Tisdell, Francis E, et al. "3-(substituted phenyl)-5-(substituted cyclopropyl)-1,2,4-triazole compounds." US, US 6262099 B1. 2001.