

## 天狼星红染色液

### 产品简介：

胶原纤维(Collagen Fiber)是结缔组织中分布最广含量最多的一种纤维，广泛分布于各种脏器，其中皮肤、巩膜、肌腱最丰富，I型胶原纤维主要是骨、皮肤、肌腱纤维；II型胶原纤维主要是软骨胶原；III型胶原纤维主要在胚胎组织、成人血管、胃肠道；IV型胶原纤维主要在基膜中。天狼星红与其衬染液都是强酸性染料，易与胶原分子中的碱性基团结合，吸附牢固，偏振光镜检查，胶原纤维有正的单轴双折射光的属性，与天狼星红复合染色液结合后，可增强双折射，提高分辨率，从而区分两型胶原纤维。

Leagene 天狼星红染色液套装由苏木素染色液、天狼星红染色液组成，主要用于各种组织病变时对胶原纤维异常或纤维增生的研究，在普通光学显微镜下心脏血管等组织的胶原纤维被染成红色，在偏振光镜下对各种纤维化病变的分型和分级研究有一定的帮助作用，采用免疫组化技术也可显示I型和III型胶原纤维，但所用抗体昂贵，操作费时，而采用天狼星红染色试剂便宜，操作简单。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        | DC0041<br>2×50ml | DC0041<br>2×100ml | Storage |
|----------------|------------------|-------------------|---------|
| 试剂(A): 苏木素染色液  | 50ml             | 100ml             | RT      |
| 试剂(B): 天狼星红染色液 | 50ml             | 100ml             | 4℃ 避光   |
| 使用说明书          | 1 份              |                   |         |

### 自备材料：

- 1、10%福尔马林固定液(10% NBF)、梯度乙醇、环保浸蜡脱蜡透明液或二甲苯、中性树胶
- 2、普通光学显微镜、偏振光显微镜

### 操作步骤(仅供参考)：

- 1、组织固定于 10%福尔马林固定液，常规脱水包埋。
- 2、切片厚 3~8μm，常规二甲苯或 Leagene 环保浸蜡脱蜡透明液脱蜡至水。
- 3、苏木素染色液滴染 3~10min，水洗 30~120s。
- 4、天狼星红染色液滴染 10~60min，较易上色组织染色 10~20min。
- 5、流水稍微冲洗，去除切片表面染色液。
- 6、95%乙醇脱水 1min，无水乙醇脱水 2 分钟，  
环保浸蜡脱蜡透明液透明 2 次，每次 1min，中性树胶封固。镜检。

### 染色结果：

普通光学显微镜：

|         |        |
|---------|--------|
| 胶原纤维    | 红色     |
| 肌纤维 血细胞 | 黄色     |
| 细胞核     | 蓝褐色至黑色 |

偏振光显微镜：

|         |          |
|---------|----------|
| I 型胶原纤维 | 强橙黄色或亮红色 |
| Ⅲ型胶原纤维  | 绿色       |

### 注意事项：

- 1、为使在偏振光镜下显示清晰，本法的切片厚度以 6~7μm 为宜。
- 2、不进行苏木素染色，细胞核着浅红色，胶原纤维和肌纤维的对比更好。
- 3、天狼星红染色后不宜在低浓度乙醇中长时间处理，否则肌纤维的黄色易被脱掉。
- 4、为了您的安全和健康，请穿实验服并戴一次性手套操作。

**有效期：**12 个月有效。常温运输，按要求保存。

### 相关产品：

| 产品编号   | 产品名称                  |
|--------|-----------------------|
| CA0075 | 青霉素-链霉素混合溶液(100×双抗)   |
| DC0032 | Masson 三色染色液          |
| DG0005 | 糖原 PAS 染色液            |
| DF0111 | 组织固定液(10% NBF)        |
| DH0006 | 苏木素伊红(HE)染色液(醇溶)      |
| DZ2011 | 环保浸蜡脱蜡透明液             |
| PS0013 | RIPA 裂解液(强)           |
| TC0713 | 葡萄糖检测试剂盒(GOD-POD 比色法) |

### 文献引用：

- 1、 Meng Xu,Hong-Hai Xu,Yuan Lin,et al.LECT2,a Ligand for Tie1,Plays a Crucial Role in Liver Fibrogenesis. CELL.August 2019.10.1016/j.cell.2019.07.021.(IF 36.216)
- 2、 Lintao Song,Yushu Hou,Da Xu,et al.Hepatic FXR-FGF4 is required for bile acid homeostasis via an FGF R4-LRH-1 signal node under cholestatic stress.Cell Metabolism.October 2024.10.1016/j.cmet.2024.09.008.(I F 27.7)
- 3、 Hao Zhang, Jiawan Wang, Jianghua Shen,et al.Prophylactic supplementation with Bifidobacterium infantis or its metabolite inosine attenuates cardiac ischemia/reperfusion injury.iMeta.July 2024.10.1002/imt2.220.(IF 23.7)
- 4、 Chaojie Yu,Zhiwei Yue,Mingyue Shi,et al.An Intrapericardial Injectable Hydrogel Patch for Mechanical-Elec trical Coupling with Infarcted Myocardium.ACS Nano.October 2022.10.1021/acsnano.2c05168.(IF 18.027)

- 5、 Wang Shuyong,Wang Xuan,Tan Zuolong,et al.Human ESC-derived expandable hepatic organoids enable therapeutic liver repopulation and pathophysiological modeling of alcoholic liver injury.CELL RESEARCH.October 2019.10.1038/s41422-019-0242-8.(IF 17.848)
- 6、 Shen Hongyu,Huang Xun,Zhao Yiheng,et al.The Hippo pathway links adipocyte plasticity to adipose tissue fibrosis.Nature Communications.October 2022.10.1038/s41467-022-33800-0.(IF 17.694)
- 7、 Yuan Lin,Meng-Qi Dong,Zhi-Min Liu,et al.A strategy of vascular-targeted therapy for liver fibrosis.HEPATOLOGY.December 2021.10.1002/hep.32299.(IF 17.425)
- 8、 He Wang,Mengmeng Xing,Weiliang Deng,et al.Anti-Sca-1 antibody-functionalized vascular grafts improve vascular regeneration via selective capture of endogenous vascular stem/progenitor cells.Bioactive Materials.March 2022.10.1016/j.bioactmat.2022.03.007.(IF 16.874)
- 9、 Su'an Tang,Lutian Yao,Jianzhao Ruan,et al.Single-cell atlas of human infrapatellar fat pad and synovium implicates APOE signaling in osteoarthritis pathology.Science Translational Medicine.January 2024.10.1126/scitranslmed.adf4590.(IF 15.8)
- 10、 Jiawan Wang,Hao Zhang,Hailong Yuan,et al.Prophylactic Supplementation with Lactobacillus Reuteri or Its Metabolite GABA Protects Against Acute Ischemic Cardiac Injury.Advanced Science.March 2024.10.1002/adv.202307233.(IF 14.3)
- 11、 Gao Ling-Fang,Zhong Yan,Long Ting,et al.Tumor bud-derived CCL5 recruits fibroblasts and promotes colorectal cancer progression via CCR5-SLC25A24 signaling.JOURNAL OF EXPERIMENTAL & CLINICAL CANCER RESEARCH.March 2022.10.1186/s13046-022-02300-w.(IF 12.658)
- 12、 Mengjie Xiao,Yufeng Tang,Jie Wang,et al.A new FGF1 variant protects against adriamycin-induced cardiotoxicity via modulating p53 activity.Redox Biology.December 2021.10.1016/j.redox.2021.102219.(IF 11.799)
- 13、 Hao Li,Haochen Xu,Hongyan Wen,et al.Lysyl hydroxylase 1 (LH1) deficiency promotes angiotensin II (Ang II)-induced dissecting abdominal aortic aneurysm.Theranostics.September 2021.10.7150/thno.65277.(IF 11.556)
- 14、 Guobao Chen,Yaxin Deng,Bin Xia,et al.In Situ Regulation and Mechanisms of 3D Matrix Stiffness on the Activation and Reversion of Hepatic Stellate Cells.Advanced Healthcare Materials.December 2022.10.1002/adhm.202202560.(IF 11.092)
- 15、 Jie Wang(a),Yufeng Tang,Jingjing Zhang,et al.Cardiac SIRT1 ameliorates doxorubicin-induced cardiotoxicity by targeting sestrin 2.Redox Biology.April 2022.10.1016/j.redox.2022.102310.(IF 10.787)
- 16、 Xu Jun Yan,Yan,Xiong Yu Yan,Yu Yan,Tang Rui Jie,et al.Interleukin-5-induced eosinophil population improves cardiac function after myocardial infarction.CARDIOVASCULAR RESEARCH.July 2021.10.1093/cvr/cvab237.(IF 10.787)
- 17、 Qingyu Yu,Hong Sun,Linhua Zhang,et al.A Zwitterionic Hydrogel with Anti-Oxidative and Anti-Inflammatory Properties for the Prevention of Peritoneal Adhesion by Inhibiting Mesothelial-Mesenchymal Transition.Advanced Healthcare Materials.September 2023.10.1002/adhm.202301696.(IF 10)
- 18、 Weitong Wang,Yuchen Ren,Qingyu Yu,et al.Biodegradable Exosome-Engineered Hydrogels for the Prevention of Peritoneal Adhesions via Anti-oxidation and Anti-inflammation.Materials Today Bio.October 2024.10.1016/j.mtbio.2024.101312.(IF 8.7)
- 19、 Wen Song,Xin Song,Chuanxu Yang,et al.Chitosan/siRNA functionalized titanium surface via a layer-by-layer approach for in vitro sustained gene silencing and osteogenic promotion.International Journal of Nanomedicine.February 2023.10.2147/IJN.S76513.(IF 8)
- 20、 Yuchen Ren,Weitong Wang,Chaojie Yu,et al.An injectable exosome-loaded hyaluronic acid-polylysine hydrogel for cardiac repair via modulating oxidative stress and the inflammatory microenvironment.INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES.July 2024.10.1016/j.ijbiomac.2024.133622.(IF 7.7)
- 21、 Yan Jinghai,Huang Shiguang,et al.Galectin-Receptor Interactions Regulates Cardiac Pathology Caused by Trichinella spiralis Infection.Frontiers in Immunology.May 2021.10.3389/fimmu.2021.639260.(IF 7.561)
- 22、 Yuze Zhang,Julia Steinmetz-Späh,Helena Idborg,et al.Microsomal prostaglandin E synthase-1 inhibition prevents adverse cardiac remodelling after myocardial infarction in mice.BRITISH JOURNAL OF PHARMACOLOGY.February 2023.10.1111/bph.16061.(IF 7.3)
- 23、 Quan Pan,Mingming Gao,DaMi Kim,et al.Hepatocyte FoxO1 Deficiency Protects From Liver Fibrosis via Reducing Inflammation and TGF-β1-mediated HSC Activation.Cellular and Molecular Gastroenterology and Hepatology.September 2023.10.1016/j.jcmgh.2023.08.013.(IF 7.2)
- 24、 Guoqing Li,Juanni Lu,Chuanhao Wang,et al.Discovery of Sophoridine α-Aryl Propionamide Derivative ZM600 as a Novel Antihepatic Fibrosis Agent.JOURNAL OF MEDICINAL CHEMISTRY.June 2024.10.1021/acs.jmedchem.4c01010.(IF 6.8)
- 25、 Zekang Li,Shuxiang Zhu,Qian Liu,et al.Polystyrene microplastics cause cardiac fibrosis by activating Wnt/β

- 
- catenin signaling pathway and promoting cardiomyocyte apoptosis in rats.ENVIRONMENTAL POLLUTION. June 2020.10.1016/j.envpol.2020.115025.(IF 6.793)
- 26、Hongyu Li,Xiaoyu Wang,Erjun Chen,et al.Introduction of a Cys360Tyr Mutation in ANO5 Creates a Mouse Model for Gnathodiaphyseal Dysplasia.JOURNAL OF BONE AND MINERAL RESEARCH.November 2021.10.1002/jbmr.4481.(IF 6.741)
  - 27、Xinyi Zhao,Hua Su,Haiyan Chen,et al.Integrated serum pharmacochemistry and network pharmacology to explore the mechanism of Yi-Shan-Hong formula in alleviating chronic liver injury.PHYTOMEDICINE.February 2024.10.1016/j.phymed.2024.155439.(IF 6.7)
  - 28、Sha Huang,Yuhua Wang,Shuwen Xie,et al.Isoliquiritigenin alleviates liver fibrosis through caveolin-1-mediated hepatic stellate cells ferroptosis in zebrafish and mice.PHYTOMEDICINE.April 2022.10.1016/j.phymed.2022.154117.(IF 6.656)
  - 29、Luyao Wang,Wenliya Dong,Huan Gao,et al.A non-mitogenic FGF4 analog alleviates non-alcoholic steatohepatitis through an AMPK-dependent pathway.BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR BASIS OF DISEASE.September 2022.10.1016/j.bbadis.2022.166560.(IF 6.633)
  - 30、Ms. Ting Gao,Gao,Ms. Jie Wang(b),Jie Wang(b),Ms. Mengjie Xiao,et al.SESN2-mediated AKT/GSK-3 $\beta$ /NF $\kappa$ B Activation to Ameliorate Adriamycin Cardiotoxicity in High Fat Diet-induced Obese Mice.ANTIOXIDANTS & REDOX SIGNALING.June 2023.10.1089/ars.2022.0156.(IF 6.6)
  - 31、Meiling Yu,Chunxue Zhang,Zhaohui Tang,et al.Intratumoral injection of gels containing losartan microspheres and (PLG-g-mPEG)-cisplatin nanoparticles improves drug penetration,retention and anti-tumor activity.CANCER LETTERS.November 2018.10.1016/j.canlet.2018.11.011.(IF 6.491)
  - 32、Shen Dai-fei,Cheng He,Cai Bo-zhi,et al.N-n-Butyl haloperidol iodide ameliorates liver fibrosis and hepatic stellate cell activation in mice.ACTA PHARMACOLOGICA SINICA.March 2021.10.1038/s41401-021-00630-7.(IF 6.15)
  - 33、Xie Shiyong,Song Shicong,Liu Sirui,et al.(Pro)renin receptor mediates tubular epithelial cell pyroptosis in diabetic kidney disease via DPP4-JNK pathway.Journal of Translational Medicine.January 2024.10.1186/s12967-023-04846-5.(IF 6.1)
  - 34、Wanqing Ji,Jiaming Wen,Weiye Lin,et al.Comparing the Characteristics of Amniotic Membrane-,Endometrial-,and Urinary-Derived ECMs and Their Effects on Endometrial Regeneration in a Rat Uterine Injury Model.Frontiers in Bioengineering and Biotechnology.April 2022.10.3389/fbioe.2022.861496.(IF 6.064)
  - 35、Yazhou Lin,Yucheng Jiao,Ye Yuan,et al.Propionibacterium acnes induces intervertebral disc degeneration by promoting nucleus pulposus cell apoptosis via the TLR2/JNK/mitochondrial-mediated pathway.Emerging Microbes & Infections.January 2018.10.1038/s41426-017-0002-0.(IF 6.032)
  - 36、Han Gao,Chengwei He,Rongxuan Hua,et al.Underlying beneficial effects of Rhubarb on constipation-induced inflammation,disorder of gut microbiome and metabolism.Frontiers in Pharmacology.December 2022.10.3389/fphar.2022.1048134.(IF 5.988)
  - 37、Shuang Li,Bingbing Qiu,Hong Lu,et al.Hyperhomocysteinemia Accelerates Acute Kidney Injury to Chronic Kidney Disease Progression by Downregulating Heme Oxygenase-1 Expression.ANTIOXIDANTS & REDOX SIGNALING.March 2019.10.1089/ars.2017.7397.(IF 5.828)
  - 38、Tian Lan,Bo Chen,Xianzhe Hu,et al.Tianhuang formula ameliorates liver fibrosis by inhibiting CCL2-CCR2 axis and MAPK/NF- $\kappa$ B signaling pathway.JOURNAL OF ETHNOPHARMACOLOGY.November 2023.10.1016/j.jep.2023.117516.(IF 5.4)
  - 39、Xiao-Wen Zhang,Yi Sui,Xiao-Xiao Liu,et al.Structures and anti-atherosclerotic effects of 1,6- $\alpha$ -glucans from Fructus Corni.INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES.August 2020.10.1016/j.ijbiomac.2020.08.038.(IF 5.162)
  - 40、Qing-Yuan Zhong,Qi-Hong Luo,Bing Lin,et al.Protective effects of andrographolide sodium bisulfate on UV-induced skin carcinogenesis in mice model.EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES.June 2022.10.1016/j.ejps.2022.106232.(IF 5.112)
  - 41、Ye Zhanhong,Huang Shiguang,Zhang Yanxia,et al.Galectins,Eosinophiles,and Macrophages May Contribute to Schistosoma japonicum Egg-Induced Immunopathology in a Mouse Model.Frontiers in Immunology.March 2020.10.3389/fimmu.2020.00146.(IF 5.085)
  - 42、Mo-Na Hong,Xiao-Dong Li,Dong-Rui Chen,et al.Renal denervation attenuates aldosterone expression and associated cardiovascular pathophysiology in angiotensin II-induced hypertension.Oncotarget.September 2016.10.18632/oncotarget.12182.(IF 5.008)

注：更多使用本产品的文献请参考产品网页

---