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论著

FISH技术评价昆明山海棠在小鼠骨髓细胞中的非整倍体诱发效应

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摘要 目的: 研究以荧光原位杂交(fluorescence in situ hybridization , FISH) 技术评价了中草药昆明山海棠根部水抽提物[Tripterygium hypoglaucum (Level) Hutch , THH]在小鼠骨髓细胞中的特异染色体不分离效应。方法:以受试物THH 腹腔注射昆明种雄性小白鼠,24 h 后取骨髓细胞常规制片,以bio-16-dUTP 标记的8 号染色体特异性着丝粒重复顺序探针进行FISH ,并以streptavidine-Cy3 与杂交信号结合。荧光显微镜下分析受试物处理动物后骨髓细胞8 号染色体分离情况。结果:在3 个受试剂量中,THH 具有与阳性对照秋水仙素类似的作用趋势,其所诱发的8 号染色体不分离频率均显著高于溶剂对照。结论:本研究证实了THH 为小鼠骨髓细胞8 号染色体异常分离的诱发因素。

关键词 荧光原位杂交 昆明山海棠 小鼠骨髓细胞 非整倍体

ANEUPLOIDY INDUCTION BY THE WATER EXTRACT OF TRI PTERYGIUM HYPOGLAUCUM (LEVEL) HUTCH IN MOUSE BONE MARROW CELLS DETECTED BY FISH

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Abstract Purpose : The water ext ract of a Chinese herb , Tri pterygium hypoglaucum (Level) Hutch (THH)was assayed for its effects of aneuploidy induction in mouse bone marrow cells by means of fluorescence in situ hybridization (FISH) . Methods : Kunming species mice were injected with THH into the abdominal cavity and killed at 24 h after t reatment . The bone marrow cell slides were prepared by general methods. FISH was carried out with Bio2162dU TP2labbled chromosome 8 probe. The hybridization signals were detected by combining st reptavidine-Cy3. Results : In three dose groups THH-induced chromosome 8 aneuploidy and the aneuploidy frequencies of chromosome 8 were significantly higher than the solvent cont rol (P < 0. 001～0. 05) . Conclusion : The result indicated that THH is an aneugen of chromosome 8 in mouse somatic cells.

Keywords fluorescence in situ hybridization Tripterygium hypoglaucum (Lvel) Hutch mouse bone marrow cell aneuploidy

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