



A service of the National Library of Medicine  
and the National Institutes of Health

My NCBI  
[Sign In] [Regis]

All Databases PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Book

Search PubMed for

Limits Preview/Index History Clipboard Details

Display Abstract  20

About Entrez  
NCBI Toolbar

All: 1 Review: 0

Text Version

1: [Jpn J Cancer Res.](#) 2002 Aug;93(8):861-6.

[Related Articles, Links](#)

### Entrez PubMed

Overview  
Help | FAQ  
Tutorials  
New/Noteworthy  
E-Utilities

### PubMed Services

Journals Database  
MeSH Database  
Single Citation Matcher  
Batch Citation Matcher  
Clinical Queries  
Special Queries  
LinkOut  
My NCBI

### Related Resources

Order Documents  
NLM Mobile  
NLM Catalog  
NLM Gateway  
TOXNET  
Consumer Health  
Clinical Alerts  
ClinicalTrials.gov  
PubMed Central

## The mouse rasH2/BHT model as an in vivo rapid assay for lung carcinogens.

[Umemura T](#), [Kodama Y](#), [Hioki K](#), [Nomura T](#), [Nishikawa A](#), [Hirose M](#), [Kurokawa Y](#).

Division of Pathology, Biological Safety Research Center, National Institute of Health Sciences, Setagaya-ku, Tokyo 158-8501, Japan.

[umemura@nihs.go.jp](mailto:umemura@nihs.go.jp)

We have demonstrated the utility of a 9-week in vivo two-stage assay for lung cancer initiating agents, using transgenic mice carrying the human prototype c-Ha-ras gene (rasH2 mice) and butylhydroxytoluene (BHT) as a potent lung promoter (rasH2/BHT model). In the present study, to ascertain appropriate conditions for BHT administration in this model, the effects of exposure on proliferation of alveolar type II cells in male rasH2 mice were examined. Additionally, use of BHT was validated for promotion of urethane (UR) carcinogenesis in male and female rasH2 mice. In a time-course study of a single intragastric administration of BHT at a dose of 400 mg/kg, increased bromodeoxyuridine-labeling index (LI) reached a maximum 3 days after treatment and was still observed after 7 days. In a dose-response study, effects were dose-dependent, the dose of 400 mg/kg causing eight-fold elevation as compared to the control. With repeated administration, whereas the LI was increased dramatically at first, effects gradually diminished with further exposure, and finally six BHT treatments failed to induce cell proliferation. In a two-stage model using UR as the initiator, although up to five consecutive doses of BHT were able to exert continued enhancing effects in terms of adenoma yield, no increment was evident with further treatments. The data overall indicate that a rasH2/BHT model with five weekly administrations of BHT at a dose of 400 mg/kg is most efficacious.

PMID: 12716462 [PubMed - indexed for MEDLINE]

Display Abstract  20

[Write to the Help Desk](#)  
[NCBI](#) | [NLM](#) | [NIH](#)  
Department of Health & Human Services  
[Privacy Statement](#) | [Freedom of Information Act](#) | [Disclaimer](#)

Apr 24 2006 06:33:44