



Transgenic Mice Containing an Antioxidant Response Element-Driven Reporter Gene

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in a line of transgenic mice that contain an antioxidant response element-driven reporter gene.

Overview

Antioxidant response elements (AREs) are small segments of DNA that turn on a wide variety of genes in response to oxidative stress. They are of particular interest in the study of cancer treatment and prevention because many chemotherapeutic agents cause oxidative stress in patients.

The Invention

UW-Madison researchers have developed a line of transgenic mice that contain a 51 base pair region of human ARE paired with the *human placental alkaline phosphatase (hPAP)* gene as a reporter. The researchers chose *hPAP* as a reporter gene because it is insensitive to heat and its activity is relatively easy to quantify, both of which should facilitate high throughput screening.

Applications

- Studying cell-specific activation of ARE
- Screening of new drugs *in vivo* for activation of protective genes

Key Benefits

- Cells could be isolated from these mice for use in high throughput screening.

Additional Information

For More Information About the Inventors

- [Jeffrey Johnson](#)

Tech Fields

- [Research Tools : Animal & disease models](#)

For current licensing status, please contact Rafael Diaz at rdiaz@warf.org or 608-960-9847