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## Ptgs2 (Cyclooxygenase-2) Luciferase Knock-In Mouse

Tech ID: 21495 / UC Case 2010-535-0

### INNOVATION

Prostaglandin-endoperoxide synthase 2 (Ptgs2, also known as Cyclooxygenase-2 or Cox-2) is an enzyme involved in the biosynthesis of prostanoids. Aberrant Ptgs2 expression plays major causal and modulatory roles in various cancers, neurodegenerative diseases, and chronic and acute inflammation conditions. UCLA researchers have developed a transgenic mouse model with an insertion of the firefly luciferase reporter gene into the endogenous Ptgs2 locus. This results in concomitant expression of Ptgs2 and the luciferase reporter, allowing researchers to non-invasively monitor Ptgs2 expression *in vivo*.

### APPLICATIONS

- ▶ This innovation allows the investigator to monitor expression of the Ptgs2 gene *in vivo* to facilitate a better understanding of the role of Ptgs2 in normal physiology and in various pathological conditions.

### RELATED MATERIALS

- ▶ Ishikawa TO, et al. Imagining cyclooxygenase-2 (Cox-2) gene expression in living animals with a luciferase knock-in reporter gene. *Mol Imaging Biol.* 8(3):171-87 (2006).

### ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ Synaptotagmin-4 Knockout Mice
- ▶ Ptgs2 (Cyclooxygenase-2) Conditional Knockout Mouse

### CONTACT

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### INVENTORS

- ▶ Herschman, Harvey R.

### OTHER INFORMATION

#### CATEGORIZED AS

- ▶ Research Tools
- ▶ Animal Models

#### RELATED CASES

2010-535-0

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