

# AhR v2 Reporter Cell Line (Hep G2)

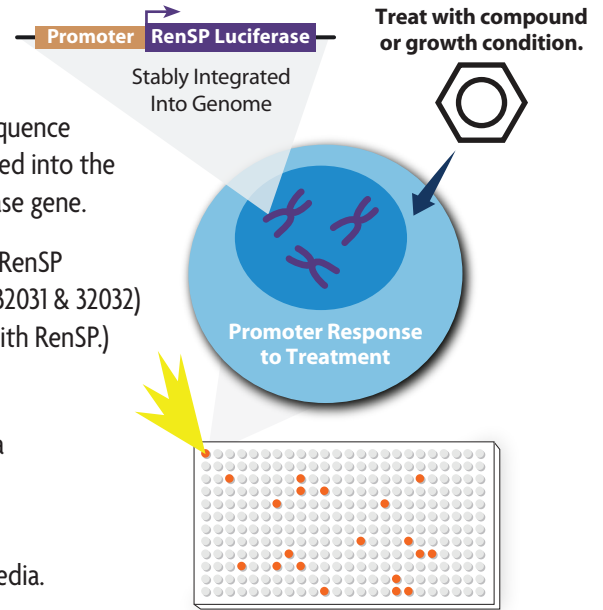
**Catalog No.:** 32234

The LightSwitch™ AhR v2 Reporter Cell Line (Hep G2) was designed for study of the aryl hydrocarbon receptor (AhR) and the regulation of biological responses to dioxins and toxicity. It contains a stably integrated LightSwitch Promoter Reporter GoClone™ construct (S714555), which is comprised of the promoter sequence of the CYP1A1 (cytochrome P450, family 1, subfamily A, polypeptide 1) gene cloned into the Promoter Reporter Vector, **pLightSwitch\_Prom**, upstream of the RenSP luciferase gene.

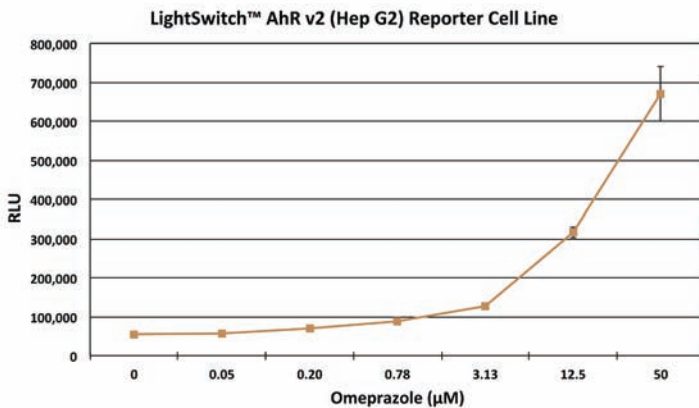
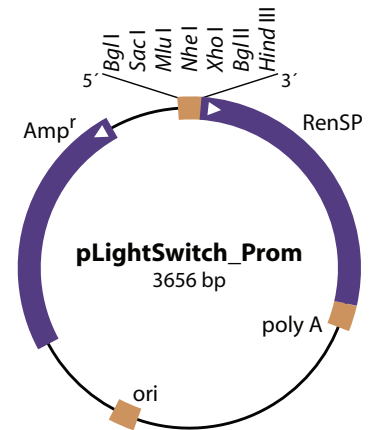
**IMPORTANT:** Because all LightSwitch reporter cell lines contain the optimized RenSP luciferase gene, you **MUST** use our **LightSwitch Luciferase Assay Kit** (Cat. Nos. 32031 & 32032) to obtain optimal results. (Other luciferase assay reagents are not compatible with RenSP.)

## Experimental Details:

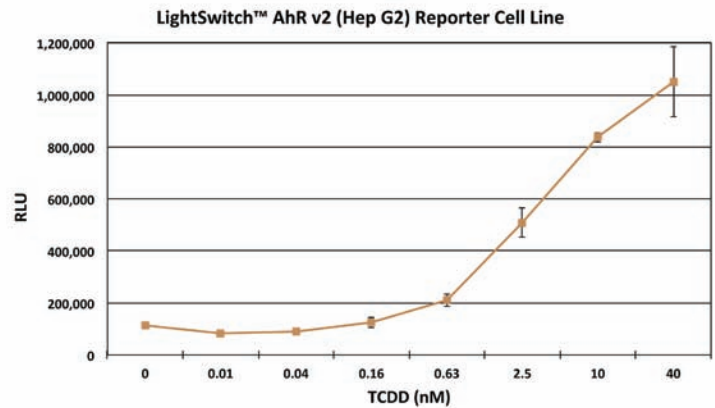
1. Assays were performed in triplicate. 10K cells per well were seeded in a 96-well white plate in standard media without antibiotic.
2. Cells were incubated at 37°C for 8 hours.
3. Standard media was removed and replaced with 100 µl of OptiMEM media. The cells were then incubated at 37°C overnight.
4. 24 hours post-seeding, cells were induced with the treatment conditions indicated below. Two 10X dose response series of Omeprazole and TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) were made in OptiMEM. Ten µl of the indicated 10X stocks were added to the designated wells.
5. Cells were incubated at 37°C for 8 hours.
6. Plates were frozen at -80°C overnight. (This step is optional, but freezing ensures complete lysis of the cells prior to running the LightSwitch Assay.)
7. Plates were thawed to room temperature and LightSwitch Luciferase Assays were performed per the standard protocol.
8. The data was normalized to the Control 2 Reporter Cell Line (ACTB promoter, Hep G2 cells; Cat. No. 32232); expression data for the control cell line was averaged across all doses. Experimental data points were then divided by this average value to normalize for non-specific effects.



**Measure luciferase activity to determine effect of treatments.**



**T-Test:** 1.35E-05  
**Z':** 0.82



**T-Test:** 5.99E-07  
**Z':** 0.91