Zebrafish ERα Reporter Assay System

INDIGO’s Zebrafish Estrogen Receptor Alpha Reporter Assay System utilizes proprietary non-human cells engineered to provide constitutive, high-level expression of Zebrafish (Danio rerio) Estrogen Receptor Alpha 1 (nr3a1), a ligand-dependent transcription factor.

INDIGO's Reporter Cells include the luciferase reporter gene functionally linked to an ERα-responsive promoter. Thus, quantifying changes in luciferase expression in the test sample-treated reporter cells provides a sensitive surrogate measure of changes in zERα activity. Luciferase gene expression occurs after ligand-bound zERα undergoes nuclear translocation, DNA binding, recruitment and assembly of the co-activators, and accessory factors required to form a functional transcription complex, culminating in expression of the reporter gene. Unlike some other cell-based assay strategies, the readout from INDIGO's reporter cells demands the same orchestration of all intracellular molecular interactions and events that can be expected to occur in vivo.

The principal application of this assay is in the screening of test samples to quantify any functional bioactivity that they may exert against zebrafish AR. In particular, zebrafish reporter assays are frequently used in the monitoring of environmental samples for the presence of biohazardous chemical pollutants, such as endocrine disruptors.

Ordering Information

Order Online »

NGO-Z00401-0032	3x32 assays
NGO-Z00401-0096	96 wells

Manuals, SDS & CofA

View Online »

Handling & Storage

Shipping Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name Estrogen Receptor α

Contents This kit product is an all-inclusive assay system that includes, in addition to zERα Reporter Cells, two optimized media for use during cell culture and (optionally) in diluting the test samples, a reference agonist, Luciferase Detection Reagent, a cell culture-ready assay plate, and a detailed protocol.

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