

# INDIGO Biosciences Releases Two New Assays for Preclinical Research of Cancer, Diabetes, and Cardiovascular Disease

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*Cell-Based Luciferase Reporter Assays for Insulin Receptor and Insulin-like Growth Factor 1*

STATE COLLEGE, PA, UNITED STATES, April 24, 2023 /EINPresswire.com/ -- INDIGO Biosciences announced today the release of two new cell-based reporter assays for the [Insulin Receptor, isoform B \(INSRb\)](#) and [Insulin-like Growth Factor 1 Receptor \(IGF-1R\)](#), both members of the receptor tyrosine kinase (RTK) family.

"These receptors are of particular interest to researchers developing therapies for diabetes, obesity, and various cancers," explained Jack Vanden Heuvel, PhD, INDIGO's Chief Scientific Officer. "Both receptors share very similar signaling pathways and there is crosstalk between them. Therefore, we developed these assays in tandem, anticipating that researchers will likely want to use them together to gain a better understanding of a compound's mechanism of action."

Insulin Receptor, isoform B (INSRb), plays a key role in metabolism by promoting the absorption of glucose from the blood into the liver, fat, and skeletal muscle cells. This signaling pathway is linked to the many human diseases that result from dysregulation of glucose metabolism, such as type 2 diabetes (T2D), insulin resistance syndromes, and a variety of cancers.

Like INSRb, Insulin-like Growth Factor 1 Receptor (IGF-1R) plays an important role in glucose homeostasis. High levels of IGF-1 are associated with both Type 2 Diabetes and cardiovascular disease. Besides its role in glucose metabolism, IGF-1R is also involved in the regulation of cellular growth and proliferation. Dysregulation of this receptor and its signaling pathway are linked to breast, lung, colorectal, and prostate cancers.

Both assays are important due to their role and function in cancer, diabetes, and cardiovascular disease research. With the growing cases of diabetes around the world, much research is being performed to understand ligand and receptor interaction for insulin mimicry as well as to improve insulin delivery. Also given the role that IGF-1R plays in cancer, multiple IGF-1R inhibitors are being explored as potential therapeutic compounds for cancer treatment.

INDIGO's Insulin Receptor and Insulin-like Growth Factor 1 Receptor Assays are available as all-inclusive kits in 96-well and 384-well assay formats. Bulk volumes of assay reagents are available

to accommodate high throughput screening applications. INDIGO also performs these and all of its receptor assays in its own lab as a convenient and economical custom service for researchers worldwide.

INDIGO's assay kits contain all supplies needed to perform the assay, including cryopreserved reporter cells, optimized media for use in recovering the cryopreserved cells and for diluting test samples, a receptor-specific reference compound, luciferase detection reagents, and a cell culture-ready assay plate. INDIGO's proprietary CryoMite™ cryo-preservation process allows scientists to immediately dispense healthy, division-competent reporter cells into the assay-ready plates. By providing all necessary assay reagents in one easy-to-use kit, INDIGO enables researchers to obtain high-quality data quickly. There is no need for researchers to take the time to procure individual components from multiple sources, painstakingly transfect and selectively propagate reporter cells, or optimize the assay.

About [INDIGO Biosciences, Inc.](#)

INDIGO Biosciences, Inc. is a leading provider of cell-based luciferase reporter assays. INDIGO offers assays as all-inclusive kits for use by scientists in their own labs, or INDIGO can perform the assays as a service. INDIGO products and services are used in a broad range of industries such as environmental, drug discovery, academia, and contract research organizations. Their assays have been used in labs worldwide and are demonstrated to provide fast, accurate, and reproducible results. INDIGO has a highly qualified technical team of scientists that are dedicated to supporting research clients through reliable, easy-to-use products and custom assay services. Learn more at [indigobiosciences.com](http://indigobiosciences.com).

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