



# MBeads Assay Guide

## Precision assays for accurate **insulin** measurement

Mercoxia Insulin MBeads assays offer a sensitive, high-throughput solution for insulin measurement in low-volume *in vitro* samples. With a broad dynamic range, the assays enable accurate detection of high insulin concentrations without the need for dilutions. Based on magnetic bead separation technology, our assays are optimized for insulin detection in conditioned media, cell lysates, and perfusion samples.

### Broad detection range

Our MBeads assays use magnetic bead separation technology, featuring surface-activated agarose beads coupled to high-quality antibodies. This design provides an extended detection range, allowing accurate measurement of high insulin concentrations while reducing the need for time-consuming sample dilutions.

### Perfusion systems

Perfusion systems are widely used to study  $\beta$ -cell kinetics *in vitro* and are essential for elucidating islet physiology and pathophysiology. Islet perfusion involves exposing islets to a continuous flow of media enriched with nutrients, gases, or reagents that mimic physiological or controlled experimental conditions. Mercoxia's MBeads assays are optimized for detecting insulin in conditioned media, cell lysates, and perfusion samples.

-  Requires only 5 or 10  $\mu$ L of sample per well
-  No dilutions needed
-  Ideal for perfusion and static *in vitro* systems
-  Enables human-specific or multi-species analysis
-  Includes a control to ensure assay performance

We developed our MBeads assays to meet the needs of modern research: low sample volumes, high sensitivity, and excellent precision.



**Kline da Silva**  
Global Product Manager,  
Mercodia

## Which MBeads assay fits your needs?

	Insulin MBeads Assay	Insulin (Total) MBeads Assay
<b>Article number</b>	10-1371-01	10-1353-01
<b>Species</b>	Human	Human and mouse (rat expected)
<b>Cross reactivity</b>	No detected cross-reactivity to insulin analogs and similar molecules	Proinsulin 59 %, mouse insulin 68 %, rat insulin 112 %
<b>Sample types</b>	Perifusion samples, conditioned media, cell lysates and homogenates	Perifusion samples, conditioned media, cell lysates and homogenates
<b>Sample volume</b>	10 µL	5 µL
<b>Range</b>	6.73 - 960 mU/L	23.3-1302 mU/L
<b>Incubation time</b>	2 h + 5 min	2 h + 5 min

