

# MOUSE PROINSULIN ELISA

80-PINMS-E01

In humans, increased relative circulating concentrations of proinsulin, as compared to insulin and/or C-peptide, is symptomatic of  $\beta$ -cell stress. Because of multiple barriers in the ability to easily and accurately measure rodent proinsulin, relatively limited data has been published regarding concentrations of this molecule in mice. These barriers stem from the variation in the rodent gene for proinsulin, resulting in the expression of two insulin precursor proteins, proinsulin I and II.

ALPCO is pleased to offer the Mouse Proinsulin ELISA kit with defined cross-reactivity to both proinsulin I and II in mice.

## CHARACTERISTICS

Sample Type:	serum
Sample Size:	10 $\mu$ l
Size:	96 wells
Range:	4-300 pM
Sensitivity:	1.15 pM
Incubation Time:	2 hours 30 minutes

## CROSS-REACTIVITY SUMMARY

Mouse Proinsulin I	100.00%
Mouse Proinsulin II	65.60%
Mouse C-peptide I	<0.5%
Mouse C-peptide II	<0.5%
Human C-peptide	ND
Human Insulin	ND
Human Proinsulin	<0.5%
Rat C-peptide I	<0.5%
Rat C-peptide II	<0.5%
Rat Proinsulin I	69.67%
Rat Proinsulin II	105%

**Figure 1:** Cross-reactivity of various peptides in the ALPCO Mouse Proinsulin ELISA.

FOR RESEARCH USE ONLY

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## STANDARD CURVE

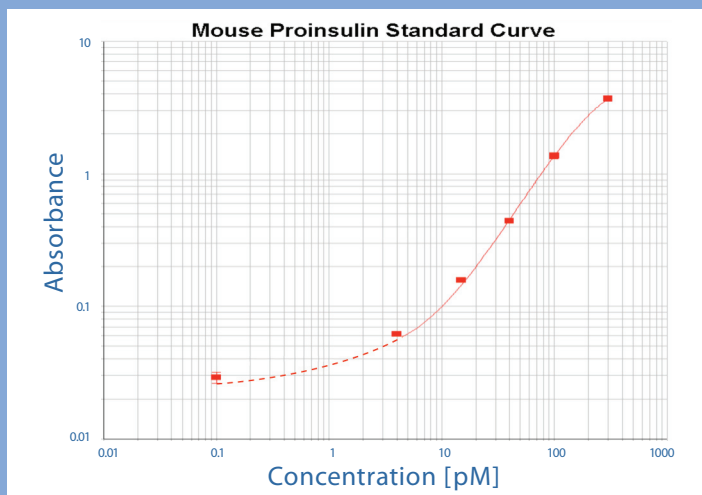


Figure 2: Representative ALPCO Mouse Proinsulin Standard Curve with a dynamic range of 4 – 300 pM.

## BENEFITS

- **Small sample volume:** only 10  $\mu$ l of sample required
- **Fully characterized cross-reactivity** to both proinsulin I and II (see Figure 1)
- **Controls Included**
- **Sensitive**
- **User-friendly ELISA kit**

## SAMPLE DISTRIBUTION

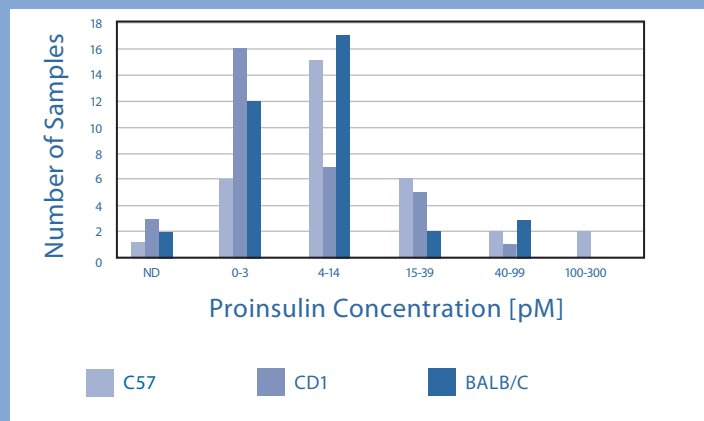


Figure 3: A panel of fasted mouse sera was screened for total proinsulin levels (n=100). Male and female C57/BL6, CD1 and BALB/C mice were tested.

## RELATED BIOMARKERS

- Insulin (Rat)
- C-peptide (Rat)
- Glucagon (Human, Mouse, Rat)
- GLP-1 (Human, Mouse, Rat)
- GLP-2 (Rat)

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