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β
(GSIS)

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II

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(nSTZ)

Diabetes Mellitus and the Control of Cellular Energy Metabolism

[] (GSIS)

(EC. 2. 7.1.2)

[] GSIS

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[] (II) MODY-2

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μM)

III II I

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(D IV)

(mM) Km (≈ KDa)

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(GKRP)

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II

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(nSTZ) II

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³ β-cell dysfunction

¹ Translocation

² Fuel Hypothesis

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ELISA

DRG

mg/kg

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Leuconostoc mesenteroides

NAD⁺ NADH

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glass

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BSA

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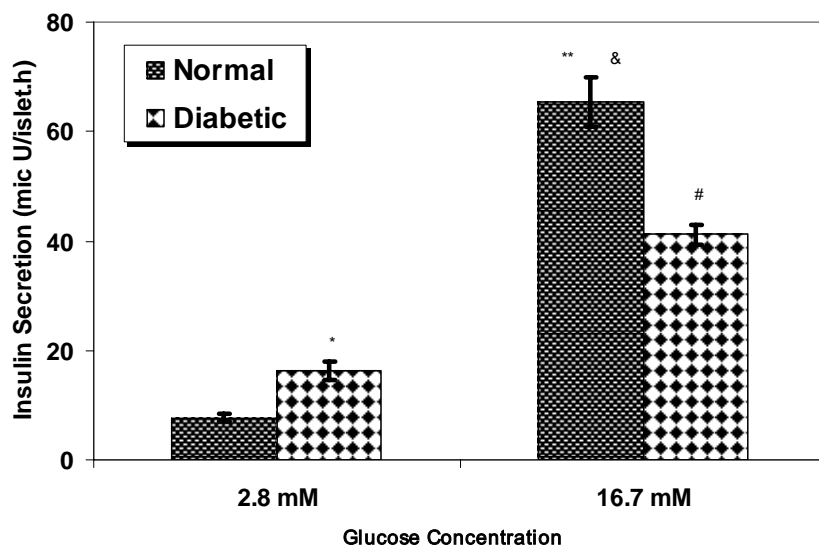
)

¹ Rat

\pm
 n . (Mean \pm SE)
 SPSS
 P-Value
 ATP

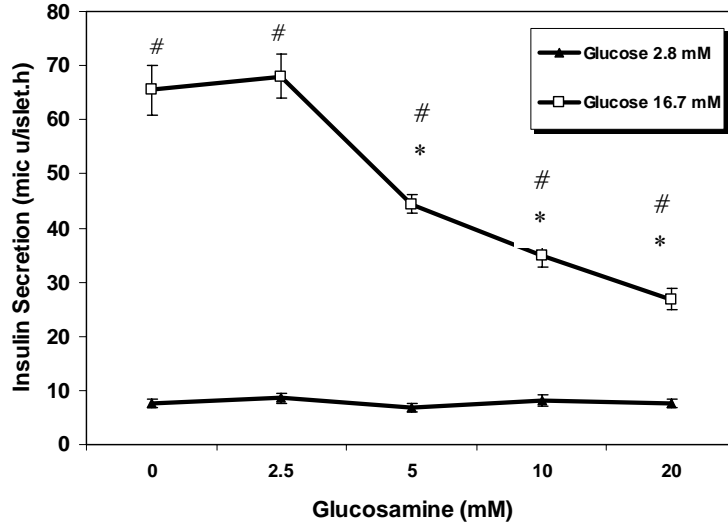
STZ

STZ



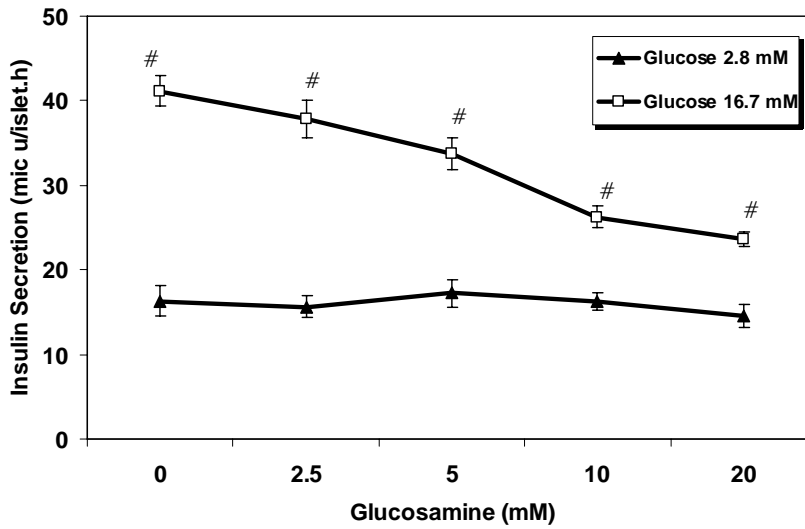
P< / ** .
 P< / * .
 n = .
 P< / # .
 (Mean \pm SE)

()



(GSIS)

* / + / P < / # . n = . n = . (Mean ± SE)
(P < /)



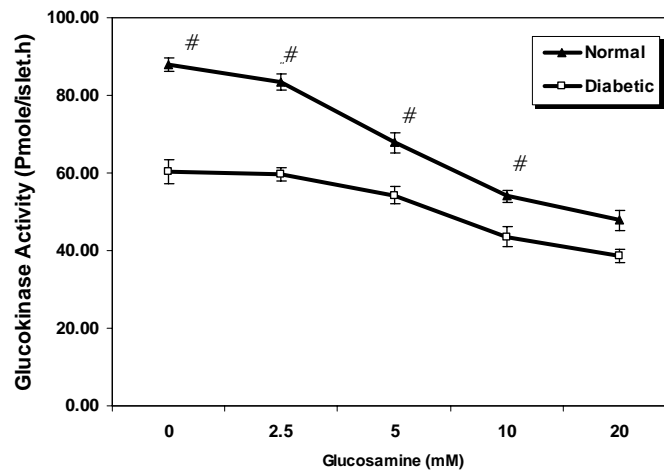
(GSIS)

+ / P < / # . n = . n = . (Mean ± SE)

/ /

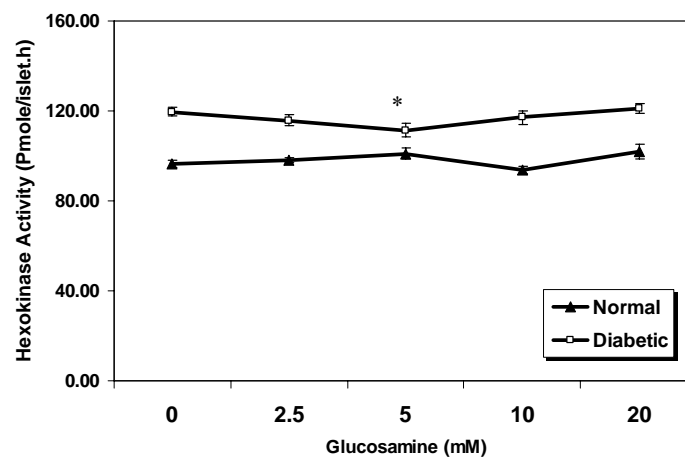
:

(/)
 / (P< /)
 (GSIS)
 /) (P< /)
 (P<
 r = /)
 . (r = / (P< /)



نمودار ۴- اثر غلظت‌های مختلف گلوکز آمین بر فعالیت گلوکوکیناز پانکراس در موش‌های صحرایی سالم و دیابتی

(Mean \pm SE) n = . n = . # . (P< /)



نمودار ۵- اثر غلظت‌های مختلف گلوکز آمین بر فعالیت هگزوکیناز پانکراس در موش‌های صحرایی سالم و دیابتی

(Mean \pm SE) n = . n = . * . (P> /)

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(P< /)

r = /)

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(r = /

(P< /)

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[] []

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()

(P< /)

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(GSIS)

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()

GSIS

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II

GSIS

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II

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(II) nSTZ

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(GSIS)

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II

GSIS

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¹ Dose-dependent

GSIS

.[]

Overexpression

GKRP

.[]

Km

.[]

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.[]

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