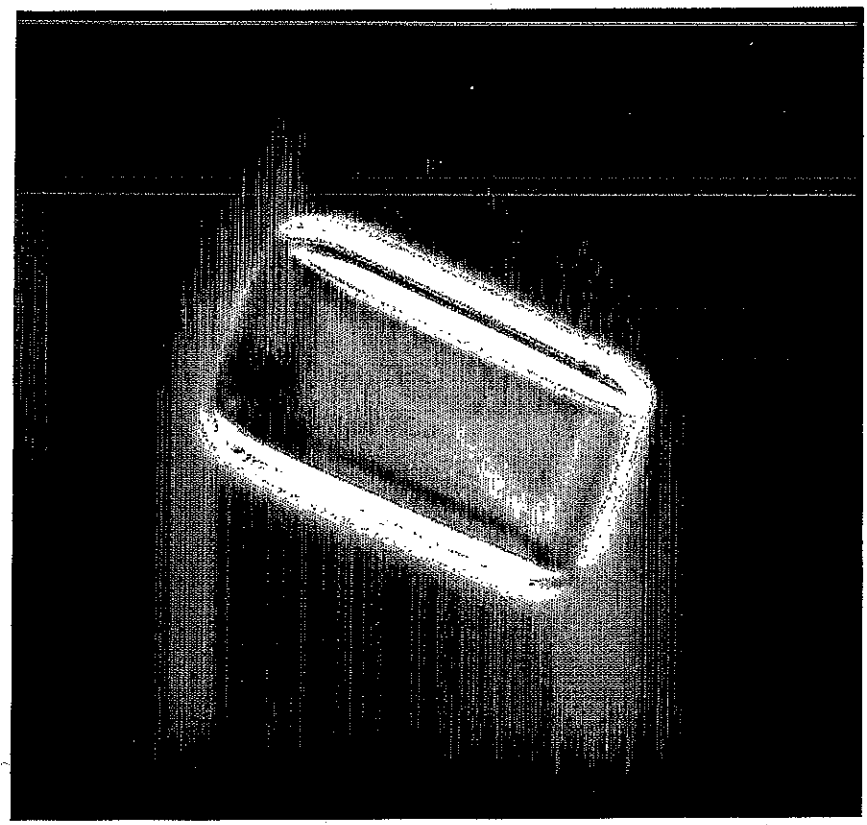


Figure 1

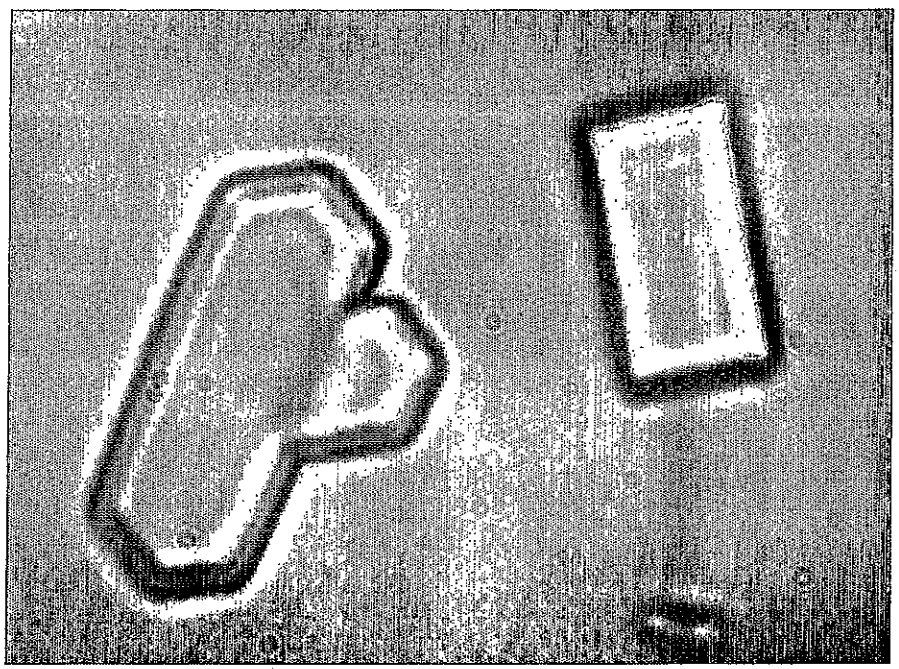


Figure 2

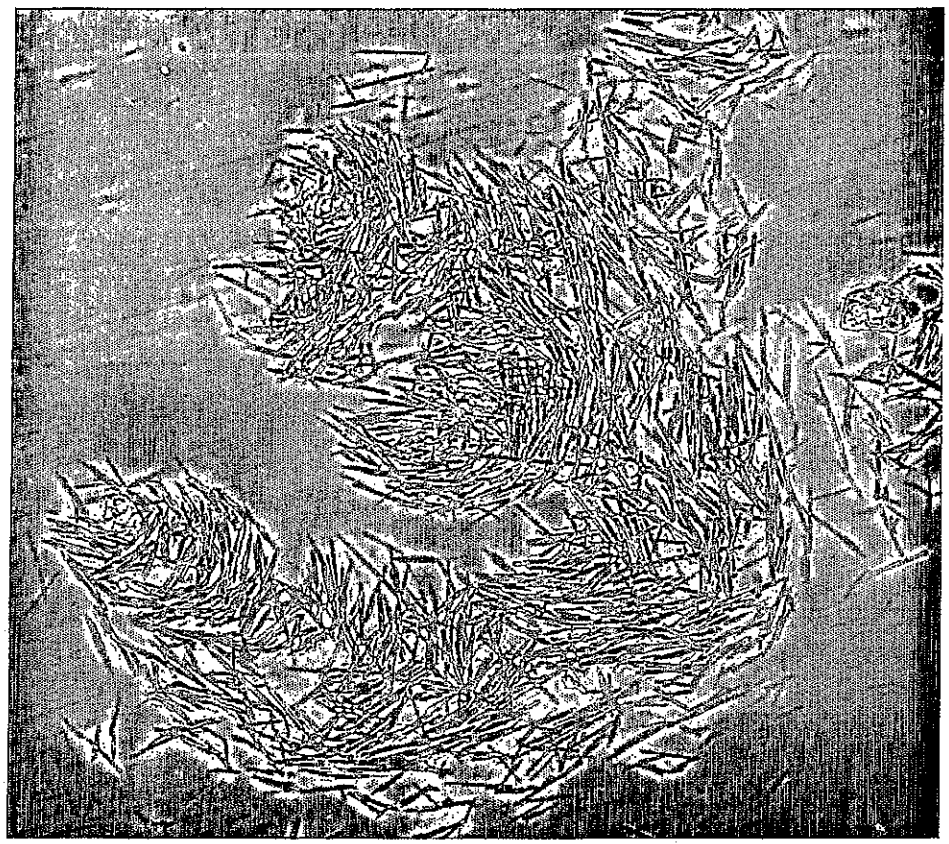


Figure 3

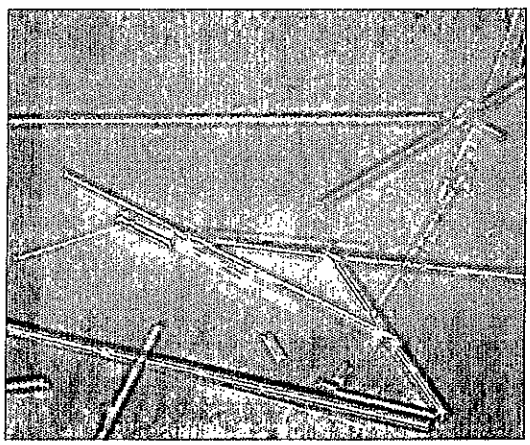


Figure 4

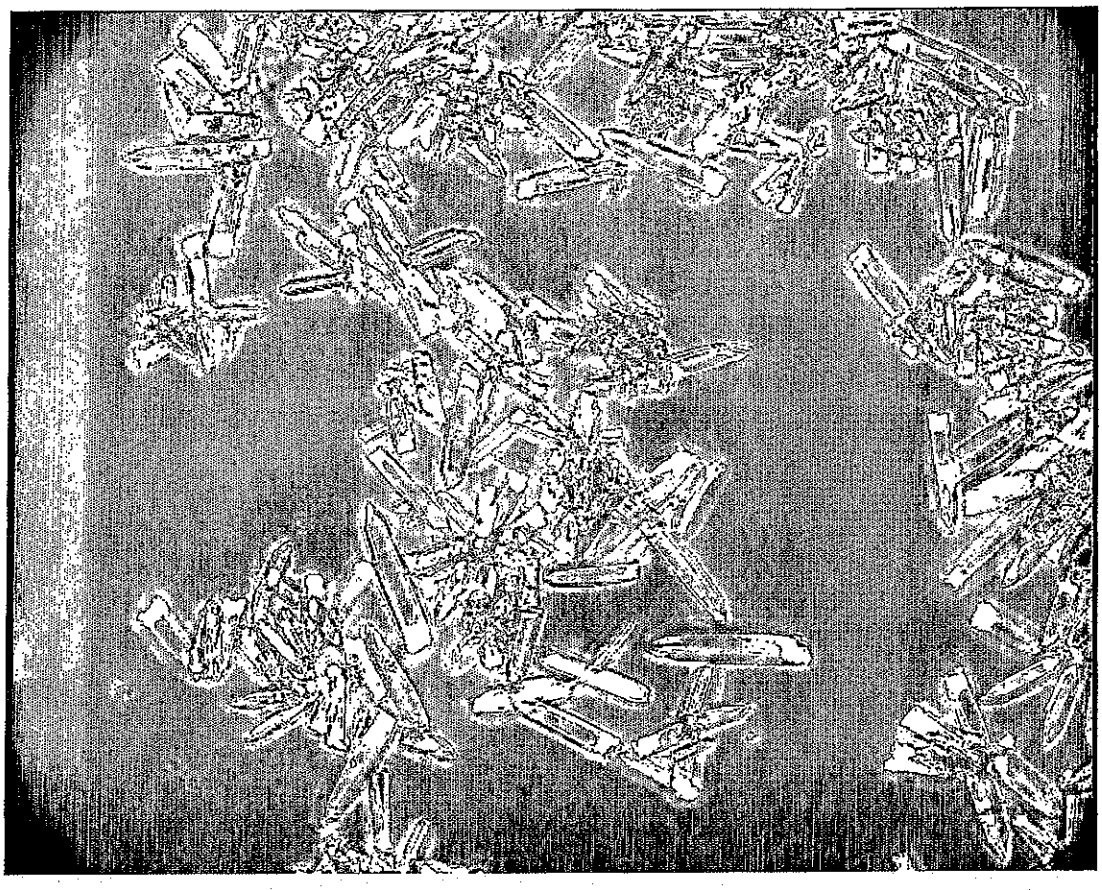
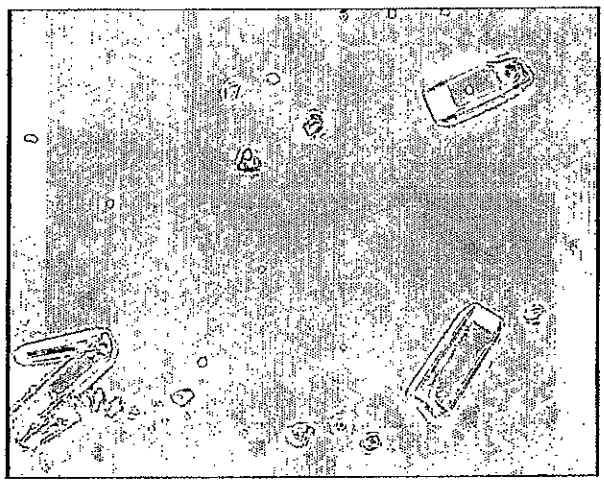


Figure 5

A

Reaction 1 pH 4.4



B

Reaction 1 pH 5.4

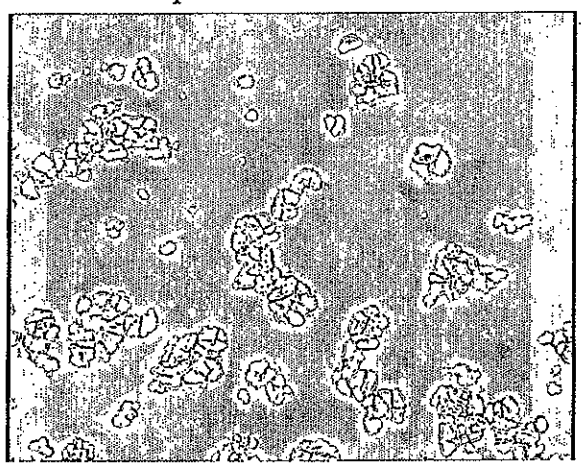
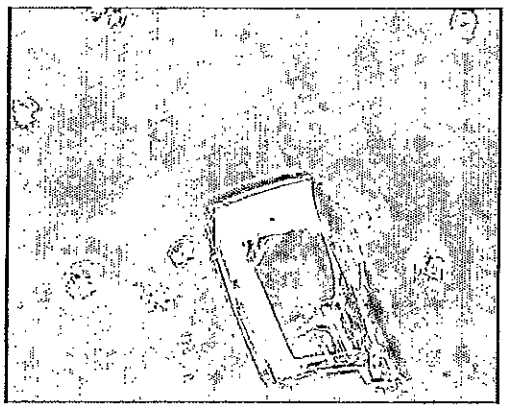


Figure 6

A

Reaction 2 pH 5.2



B

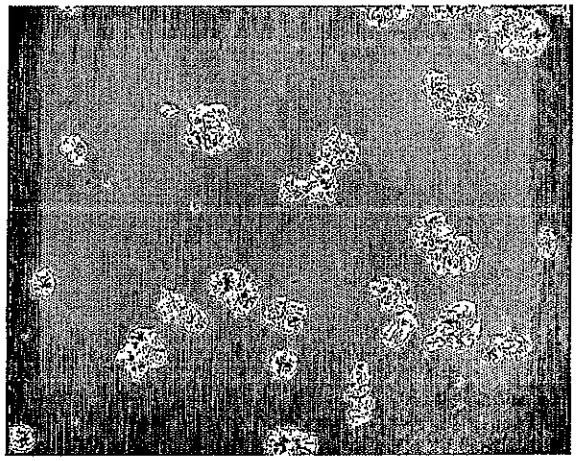
Reaction 3 pH 5.0



Figure 7

A

Reaction 4 pH 5.4



B

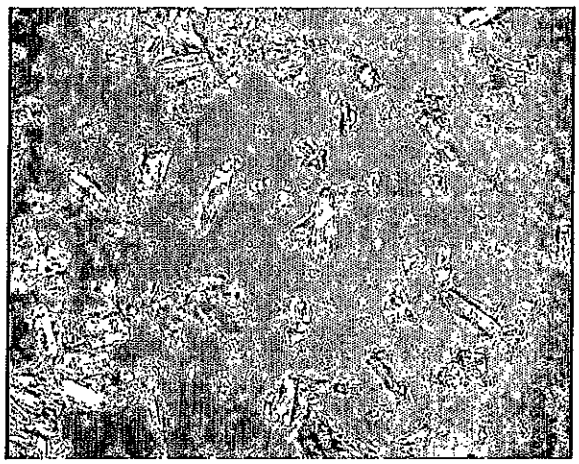
Reaction 5 pH 5.0



Figure 8

A

Reaction 6 pH 4.8



B

Reaction 8 pH=5.4

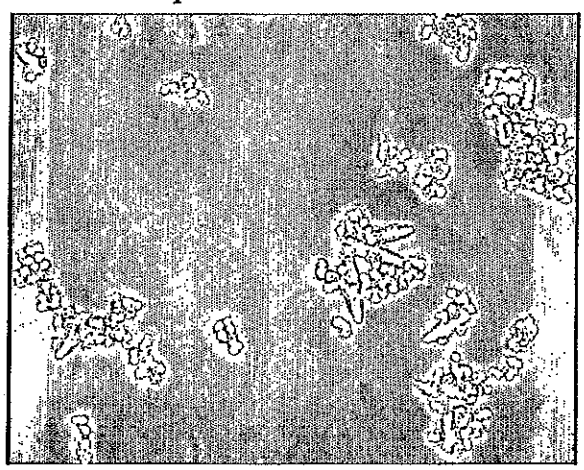


Figure 9

A

Reaction 10 pH=5.0



B

Reaction 10 pH=5.4

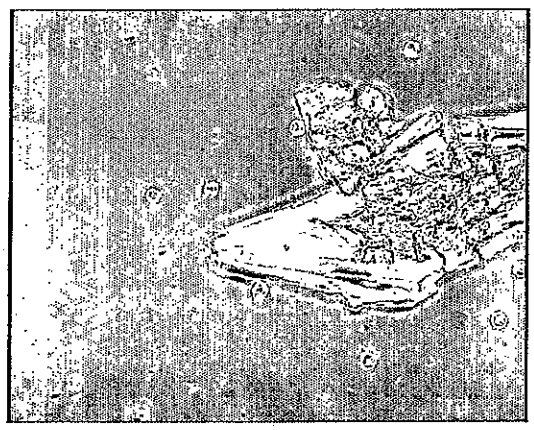


Figure 10

A

Reaction cc1B pH=5.0



B

Reaction cc1B pH=5.2

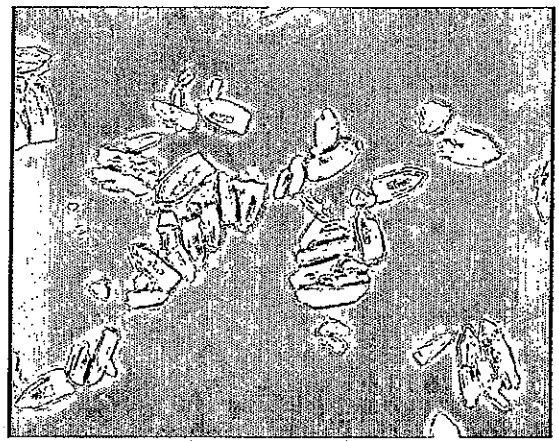
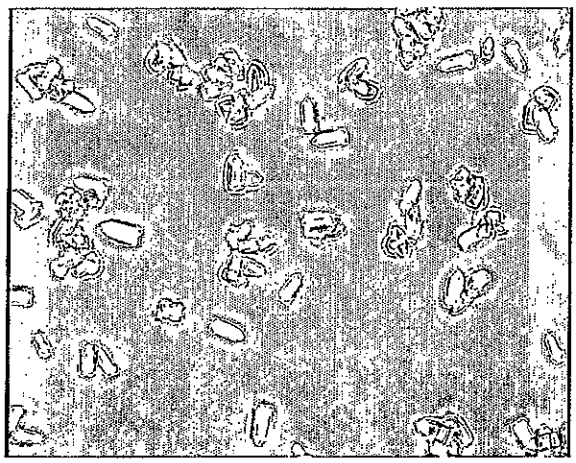


Figure 11

A

Reaction cc1B pH=5.6



B

Reaction cc2B pH=5.2

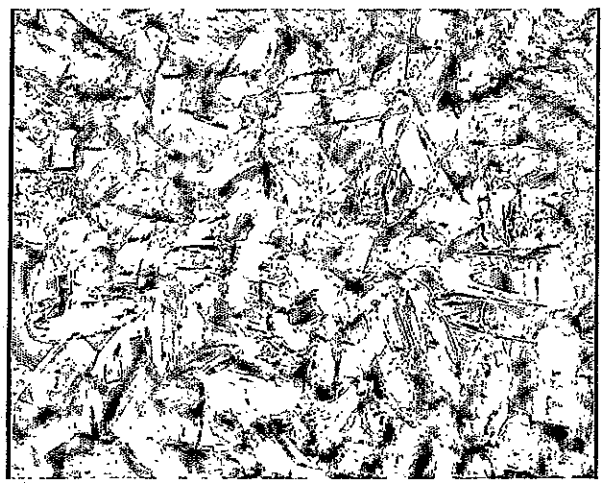
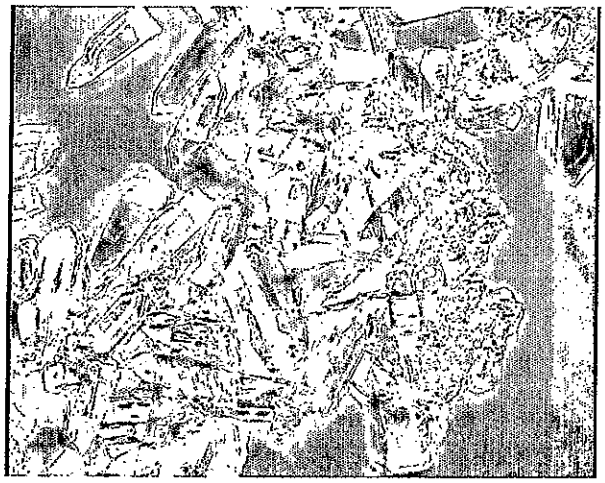


Figure 12

A

Reaction cc2B B pH=5.2



B

Reaction cc3B pH=5.6

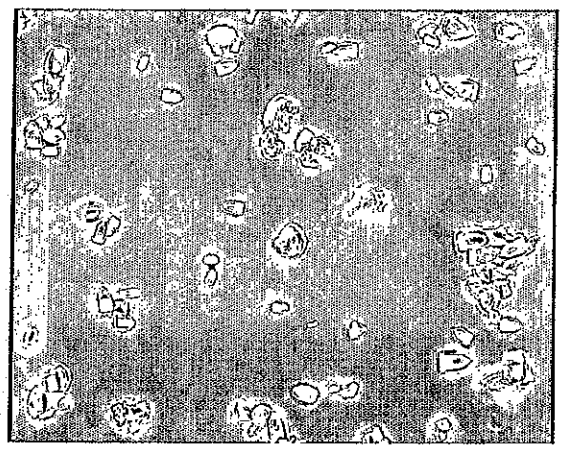
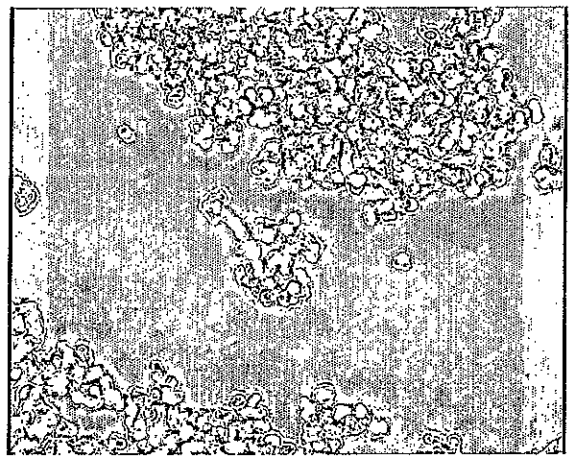


Figure 13

A

cc5a pH = 4.6



B

cc6a pH = 5.0

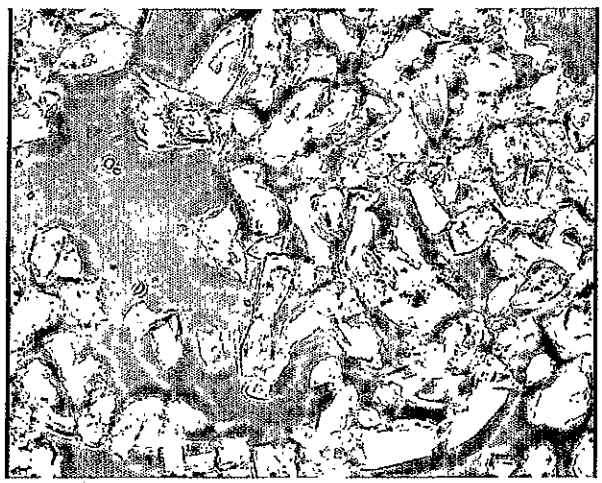
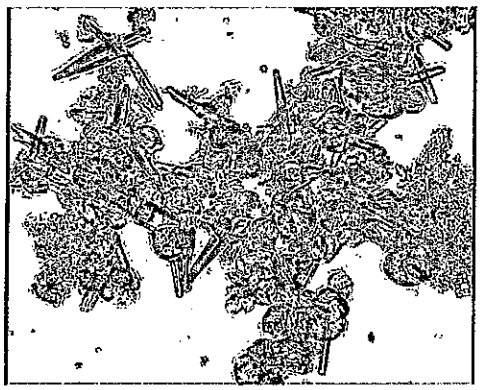


Figure 14

A

cc7 pH=5.2



B

cc9 pH=5.4

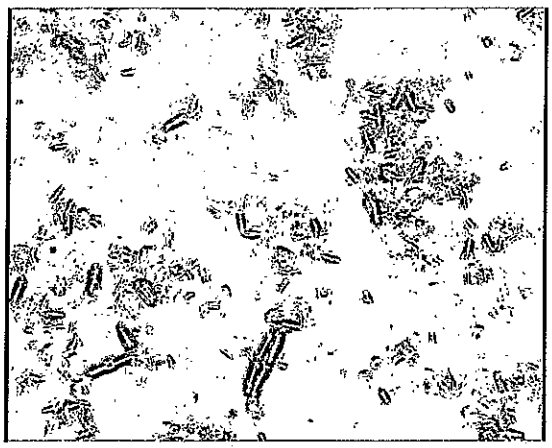


Figure 15

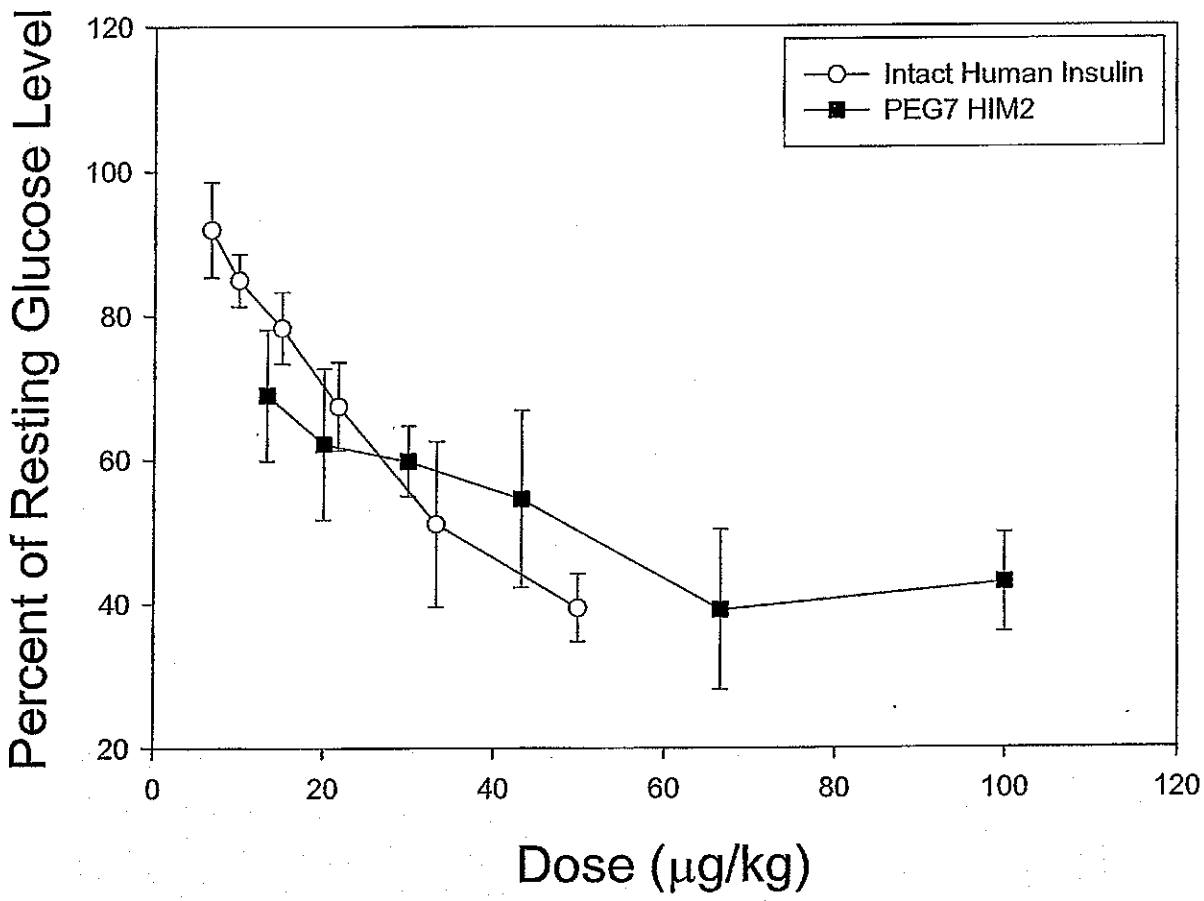

Percent of Resting Glucose Level
120
100
80
60
40
20
0
20
40
60
80
100
120
Dose (µg/kg)
Intact Human Insulin
PEG7 HIM2

Figure 16

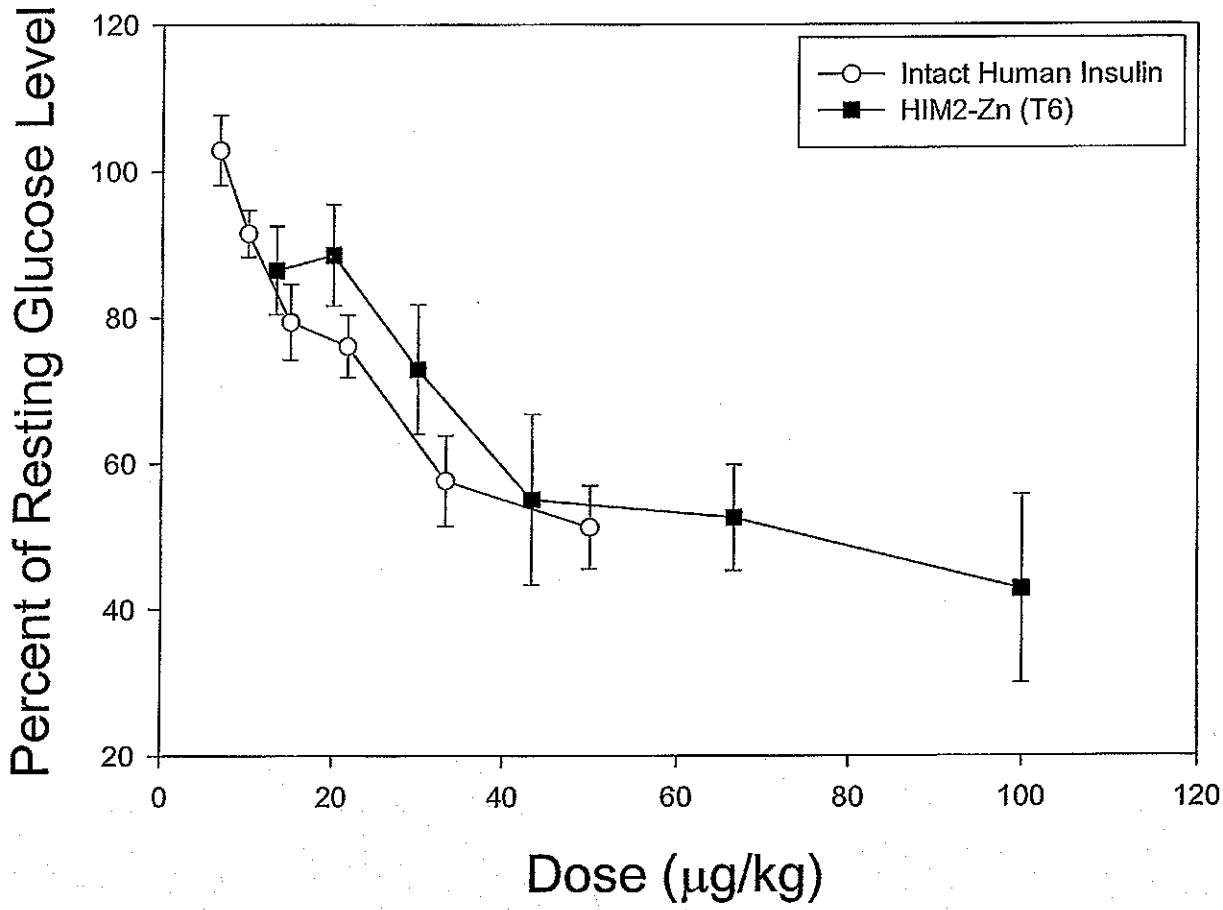

Percent of Resting Glucose Level
120
100
80
60
40
20
0
20
40
60
80
100
120
Dose (µg/kg)
Intact Human Insulin
HIM2-Zn (T6)

Figure 17

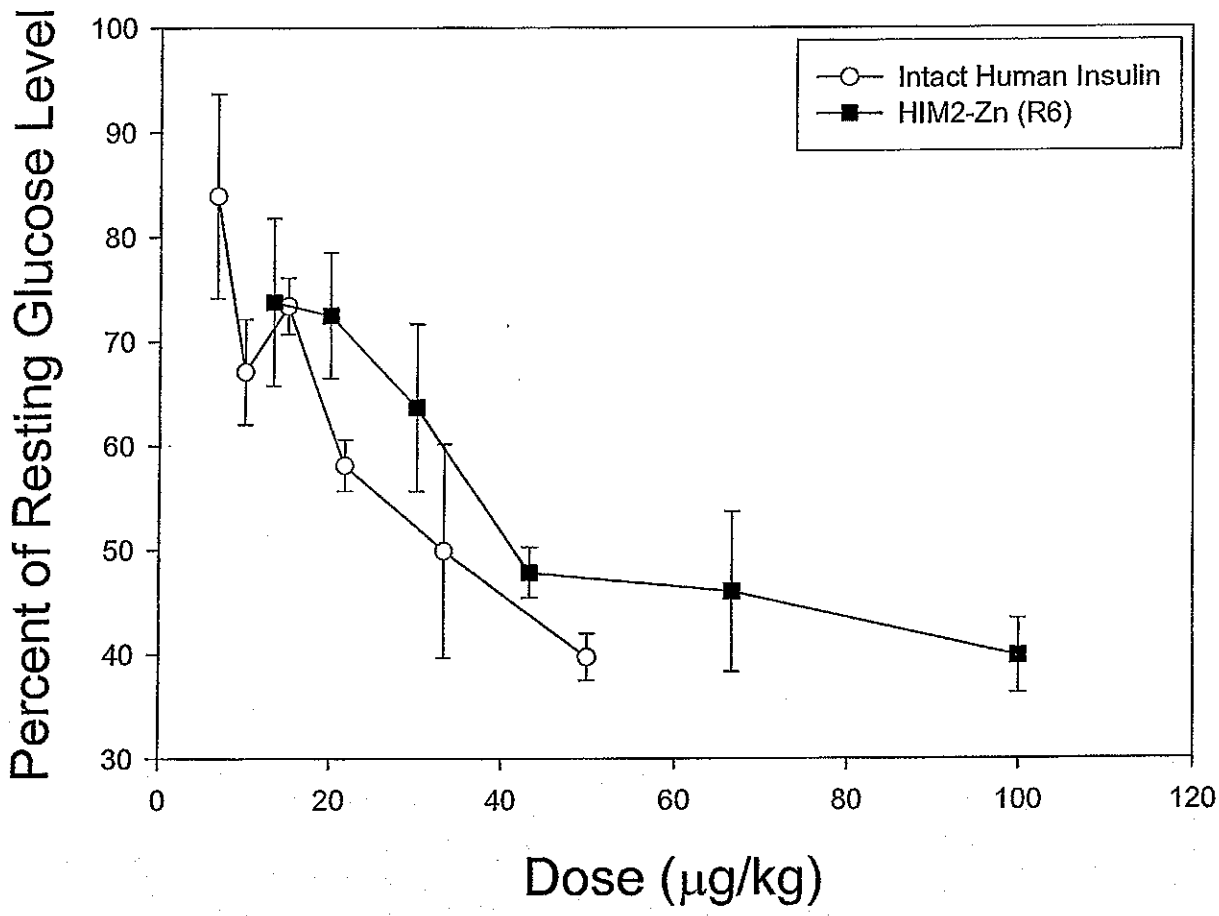

Percent of Resting Glucose Level
100
90
80
70
60
50
40
30
0
20
40
60
80
100
120
Dose (μg/kg)
Intact Human Insulin
HIM2-Zn (R6)

Figure 18

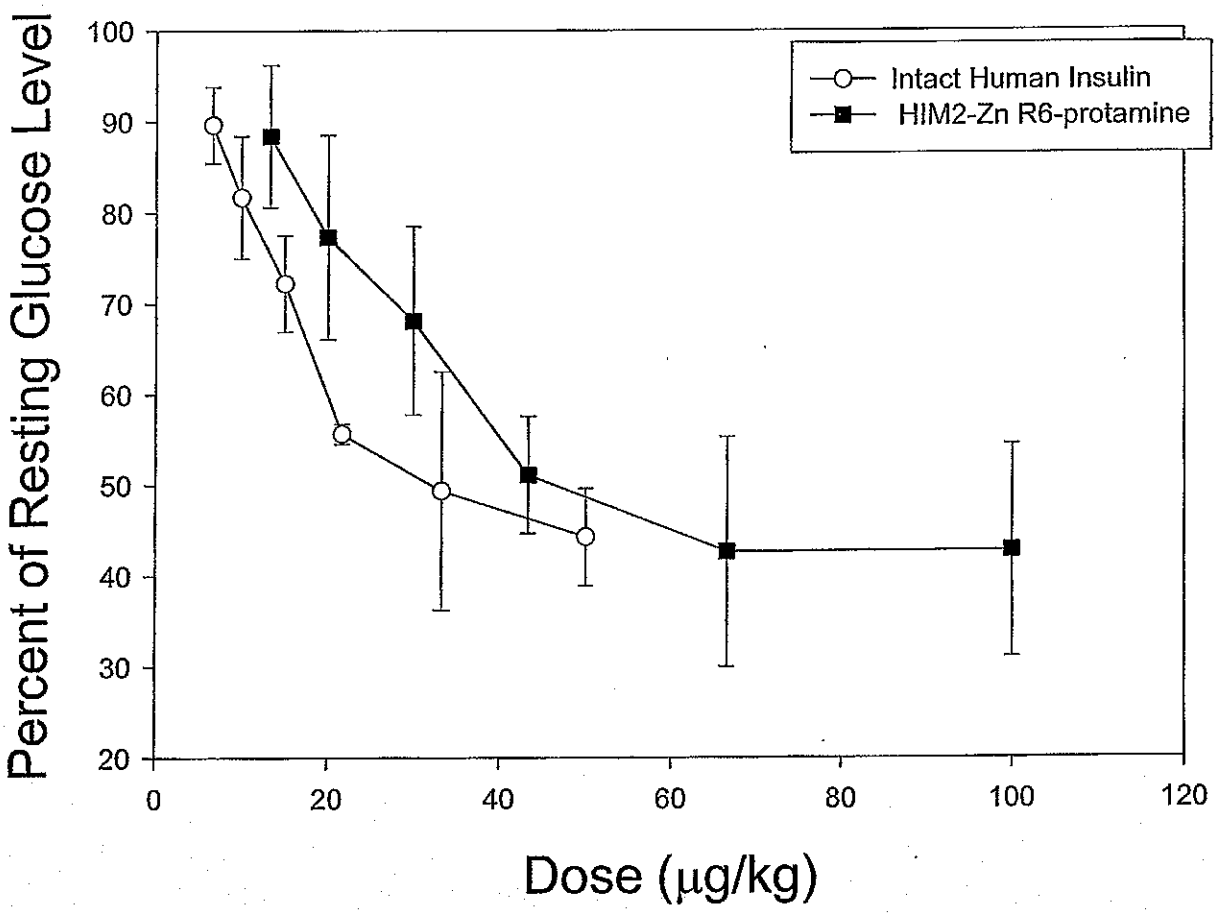

Percent of Resting Glucose Level
100
90
80
70
60
50
40
30
20
0
20
40
60
80
100
120
Dose (µg/kg)
Intact Human Insulin
HIM2-Zn R6-protamine

Figure 19

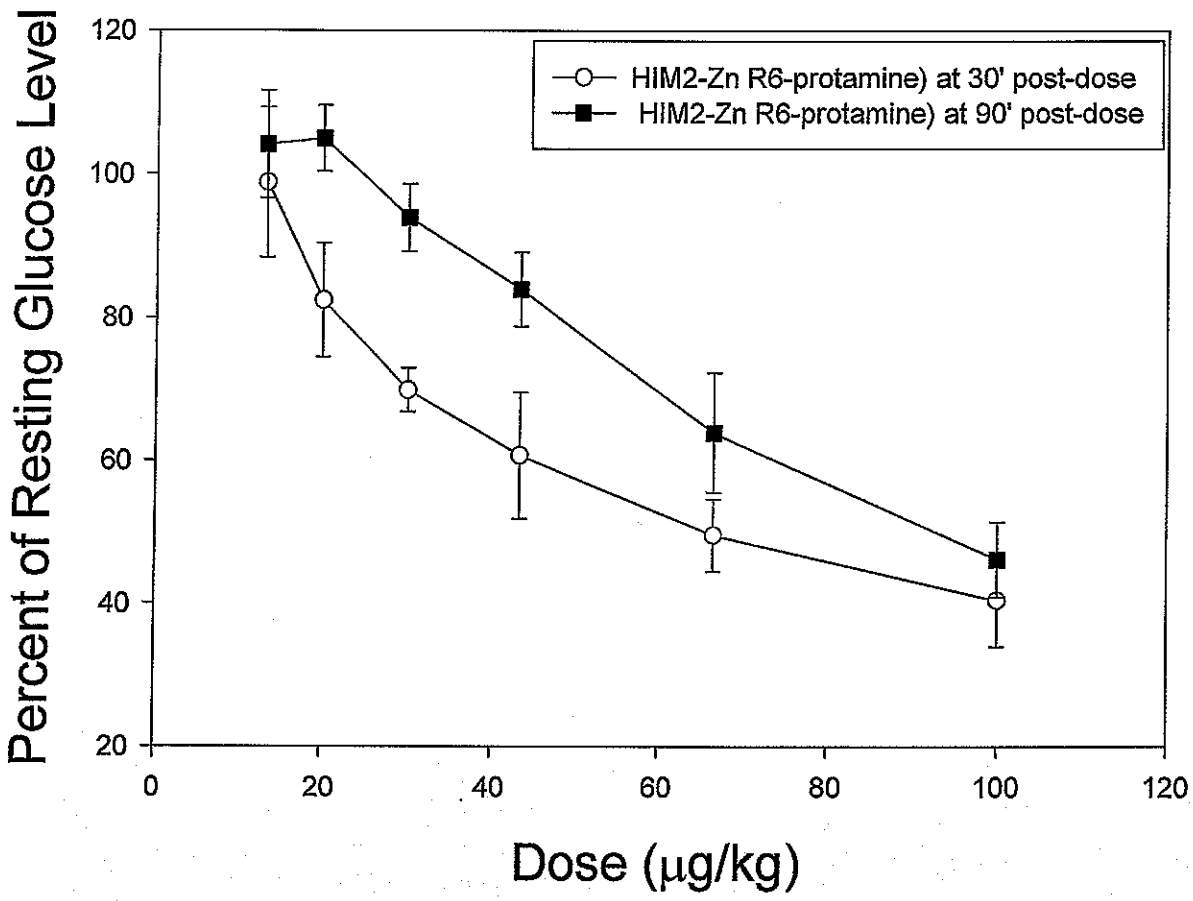

Percent of Resting Glucose Level
120
100
80
60
40
20
0
20
40
60
80
100
120
Dose (µg/kg)
HIM2-Zn R6-protamine) at 30' post-dose
HIM2-Zn R6-protamine) at 90' post-dose

Figure 20

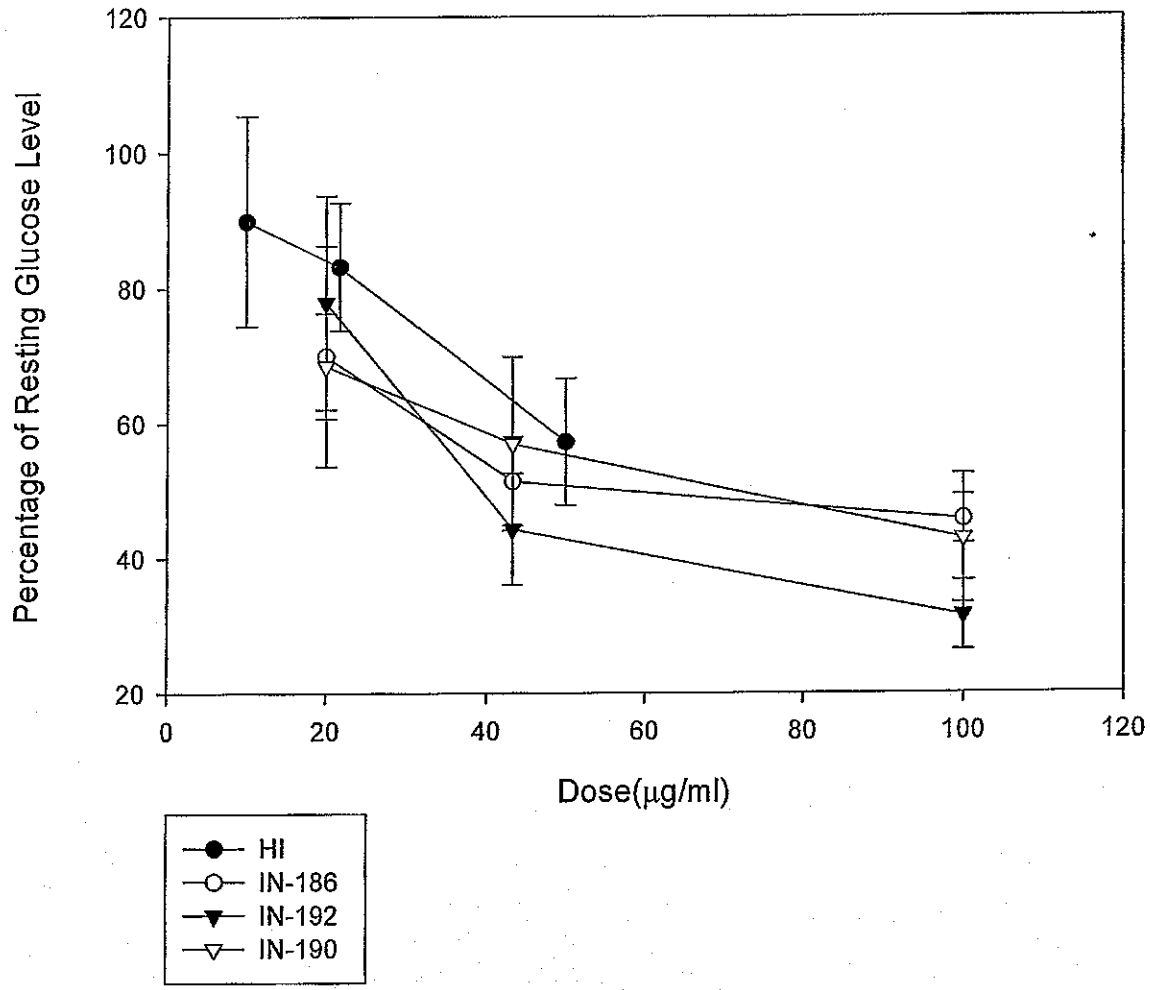

Percentage of Resting Glucose Level
120
100
80
60
40
20
0
20
40
60
80
100
120
Dose(μg/ml)
HI
IN-186
IN-192
IN-190

Figure 21

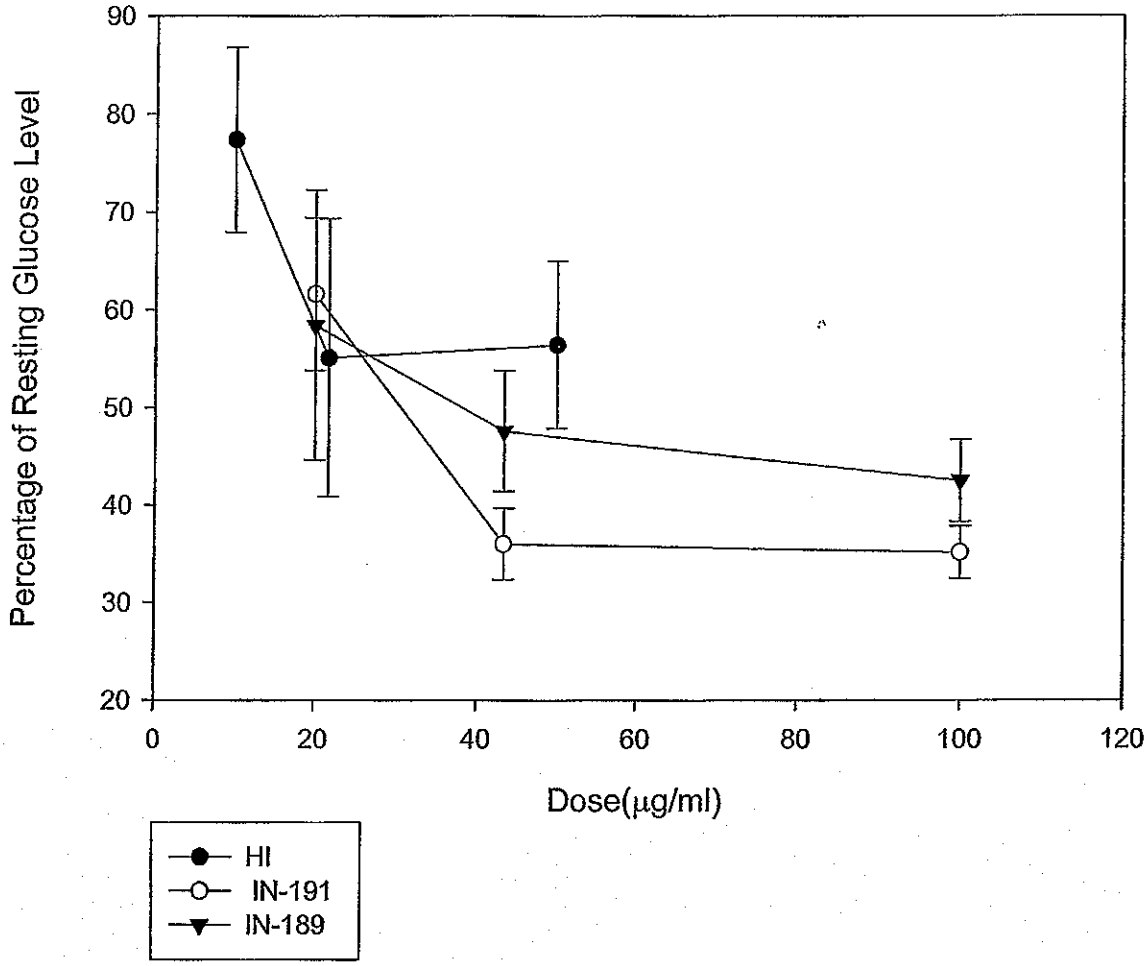

Percentage of Resting Glucose Level
90
80
70
60
50
40
30
20
0
20
40
60
80
100
120
Dose(μg/ml)
HI
IN-191
IN-189

Figure 22

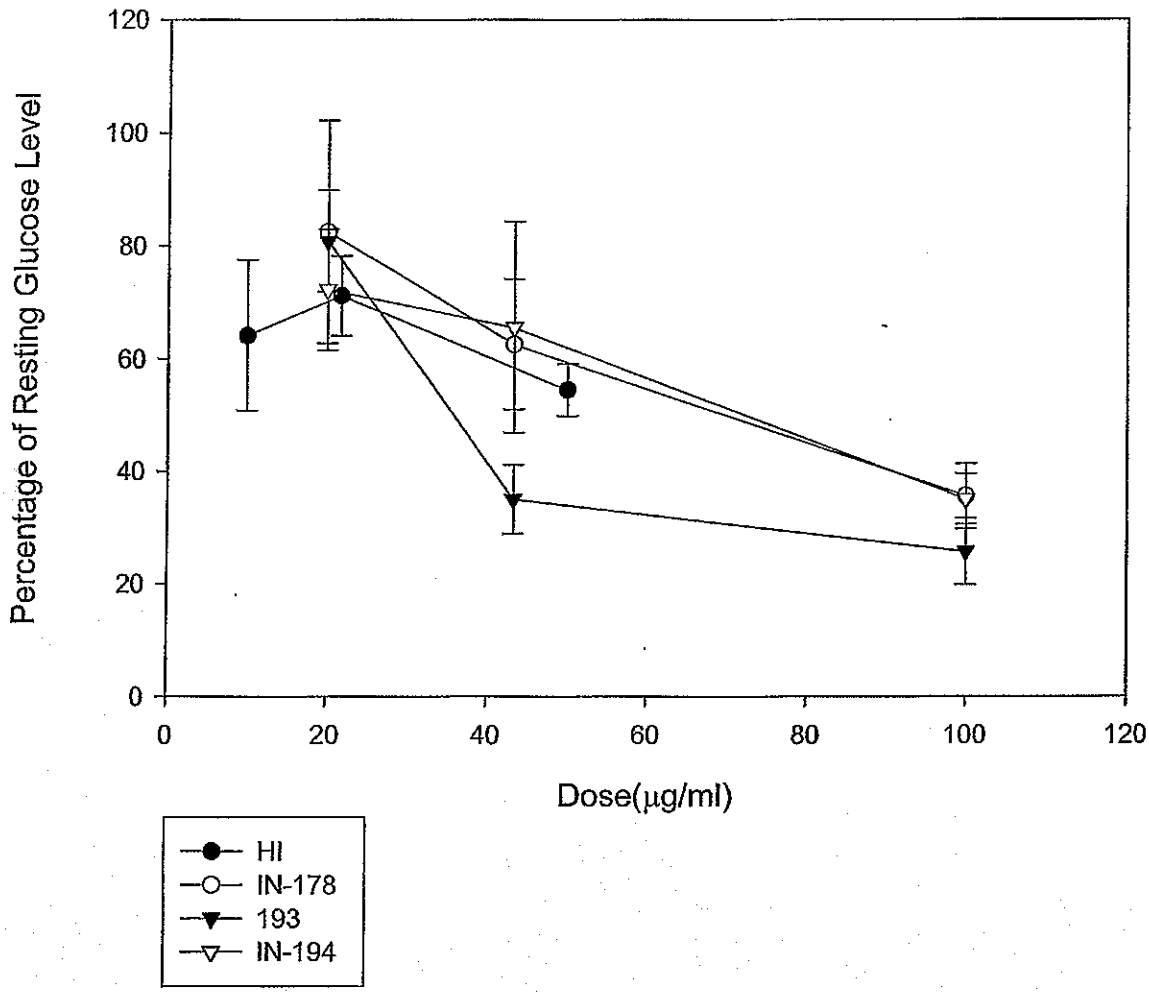

Percentage of Resting Glucose Level
120
100
80
60
40
20
0
0
20
40
60
80
100
120
Dose(µg/ml)
HI
IN-178
193
IN-194

Figure 23

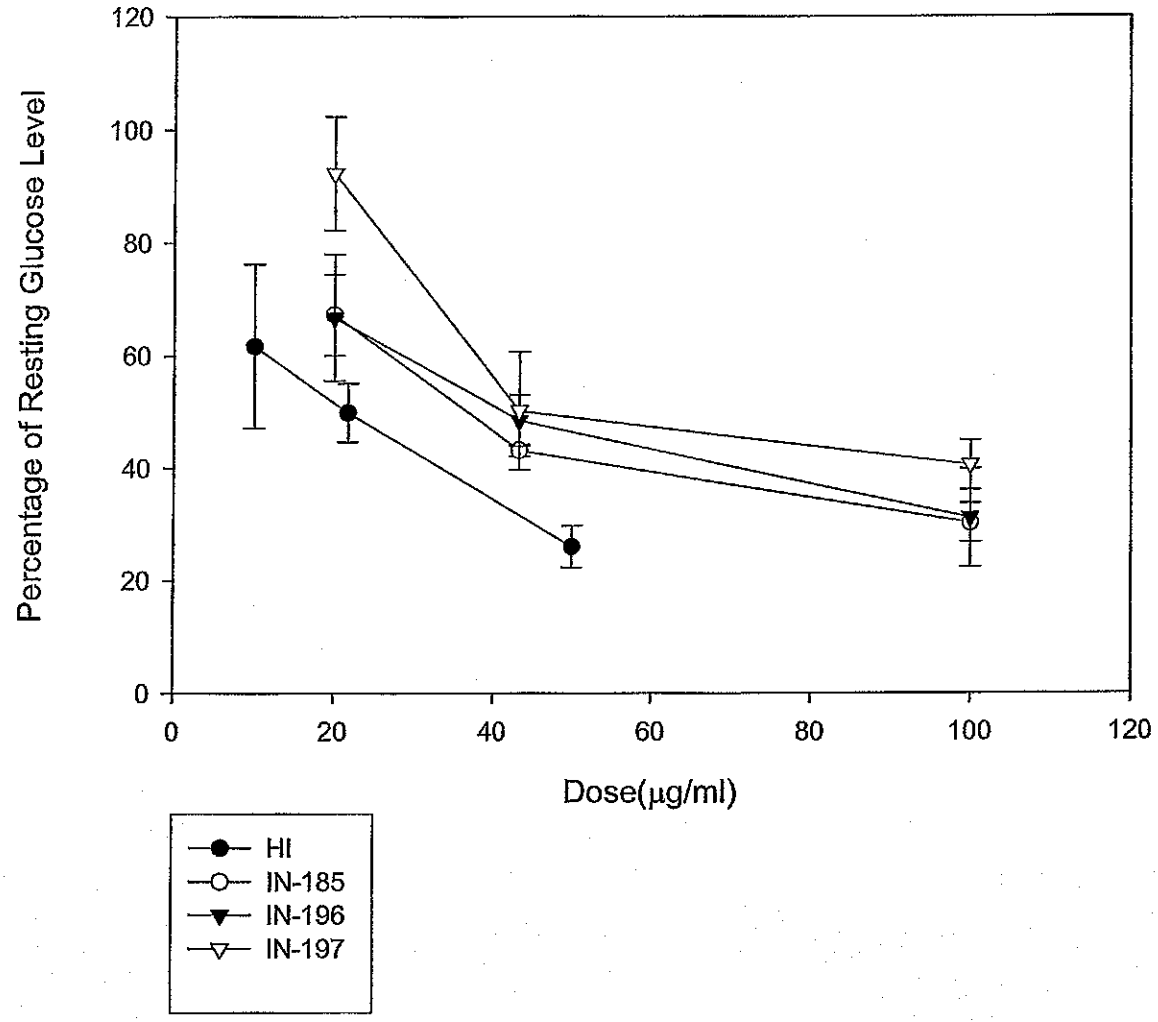

Percentage of Resting Glucose Level
120
100
80
60
40
20
0
0
20
40
60
80
100
120
Dose(µg/ml)
HI
IN-185
IN-196
IN-197

Figure 24

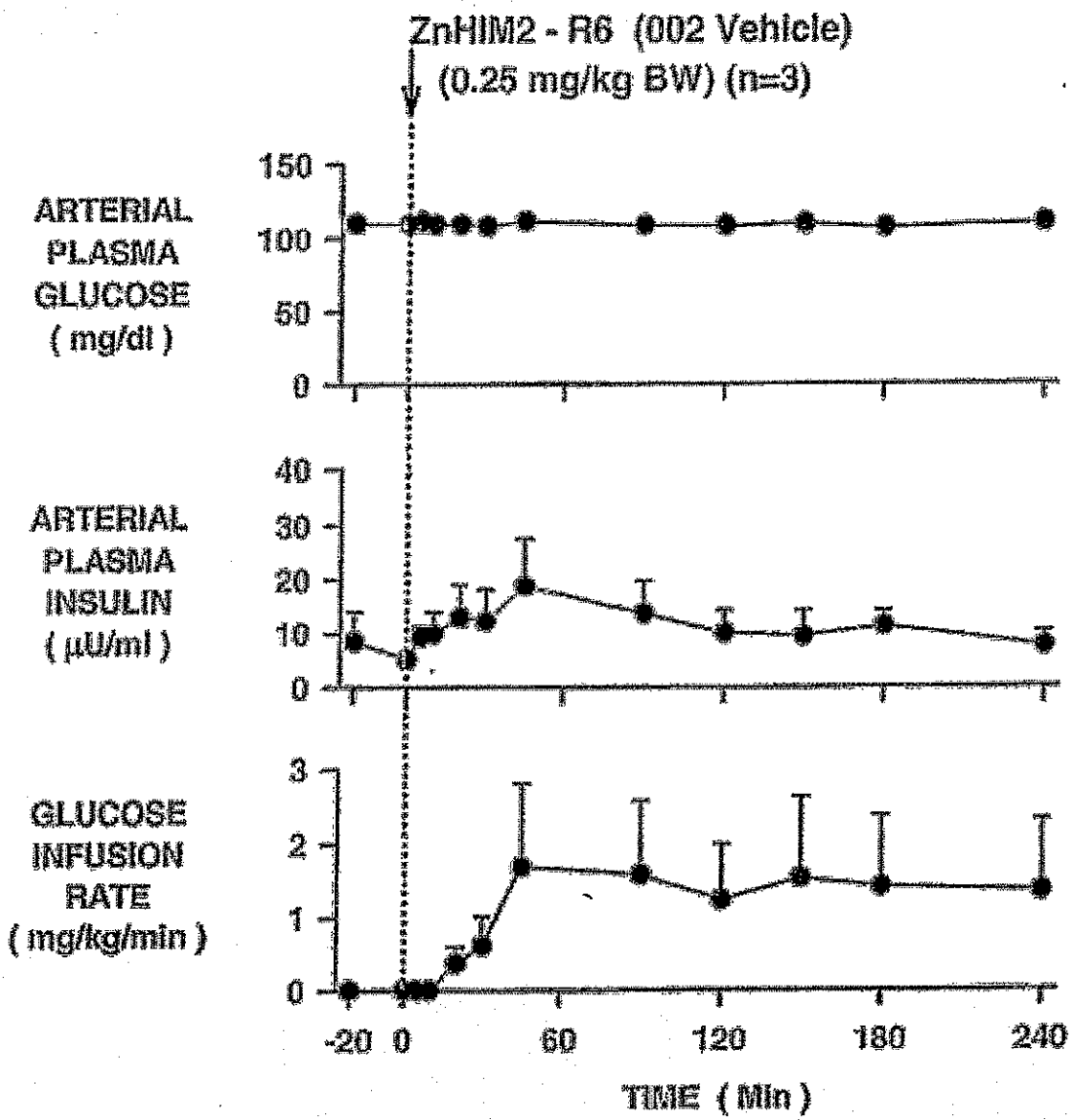

ZnHIM2 - R6 (002 Vehicle)
(0.25 mg/kg BW) (n=3)
ARTERIAL PLASMA GLUCOSE (mg/dl)
150
100
50
0
ARTERIAL PLASMA INSULIN (µU/ml)
40
30
20
10
0
GLUCOSE INFUSION RATE (mg/kg/min)
3
2
1
0
-20
0
60
120
180
240
TIME (Min)

Figure 25

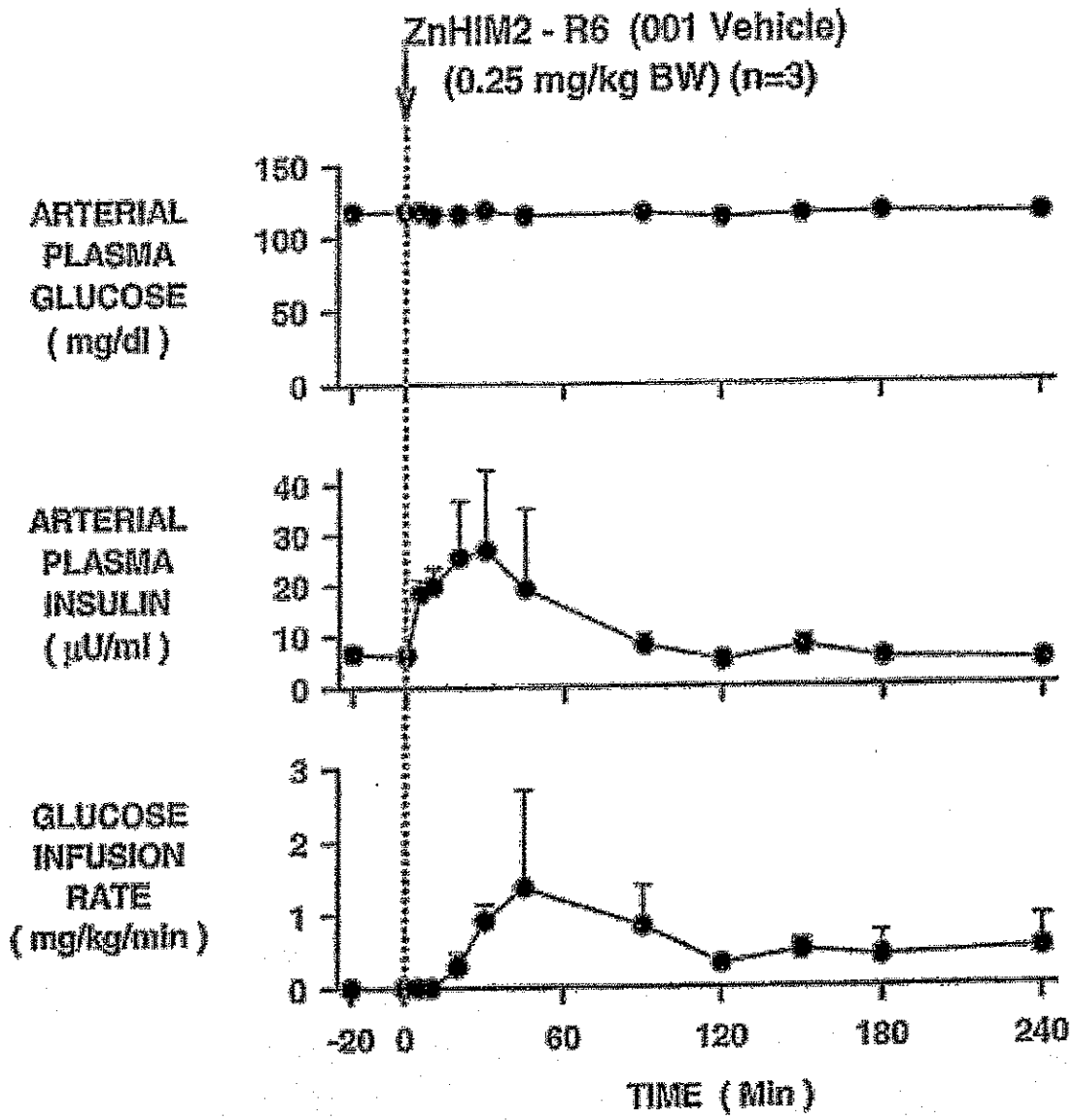

ZnHIM2 - R6 (001 Vehicle)
(0.25 mg/kg BW) (n=3)
ARTERIAL PLASMA GLUCOSE (mg/dl)
150
100
50
0
ARTERIAL PLASMA INSULIN (µU/ml)
40
30
20
10
0
GLUCOSE INFUSION RATE (mg/kg/min)
3
2
1
0
-20
0
60
120
180
240
TIME (Min)

Figure 26

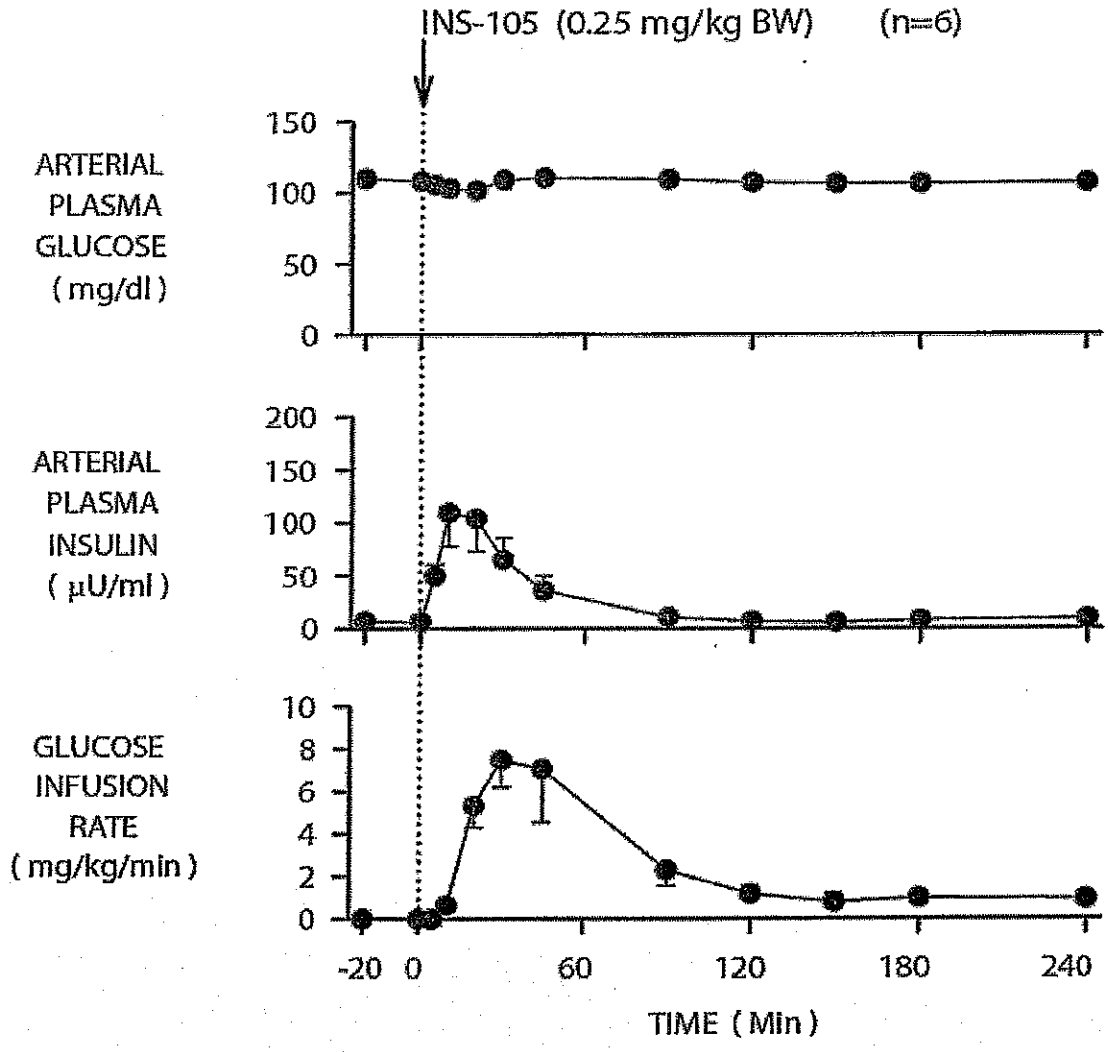

INS-105 (0.25 mg/kg BW) (n=6)
ARTERIAL PLASMA GLUCOSE (mg/dl)
150
100
50
0
ARTERIAL PLASMA INSULIN (μU/ml)
200
150
100
50
0
GLUCOSE INFUSION RATE (mg/kg/min)
10
8
6
4
2
0
-20
0
60
120
180
240
TIME (Min)

Figure 27

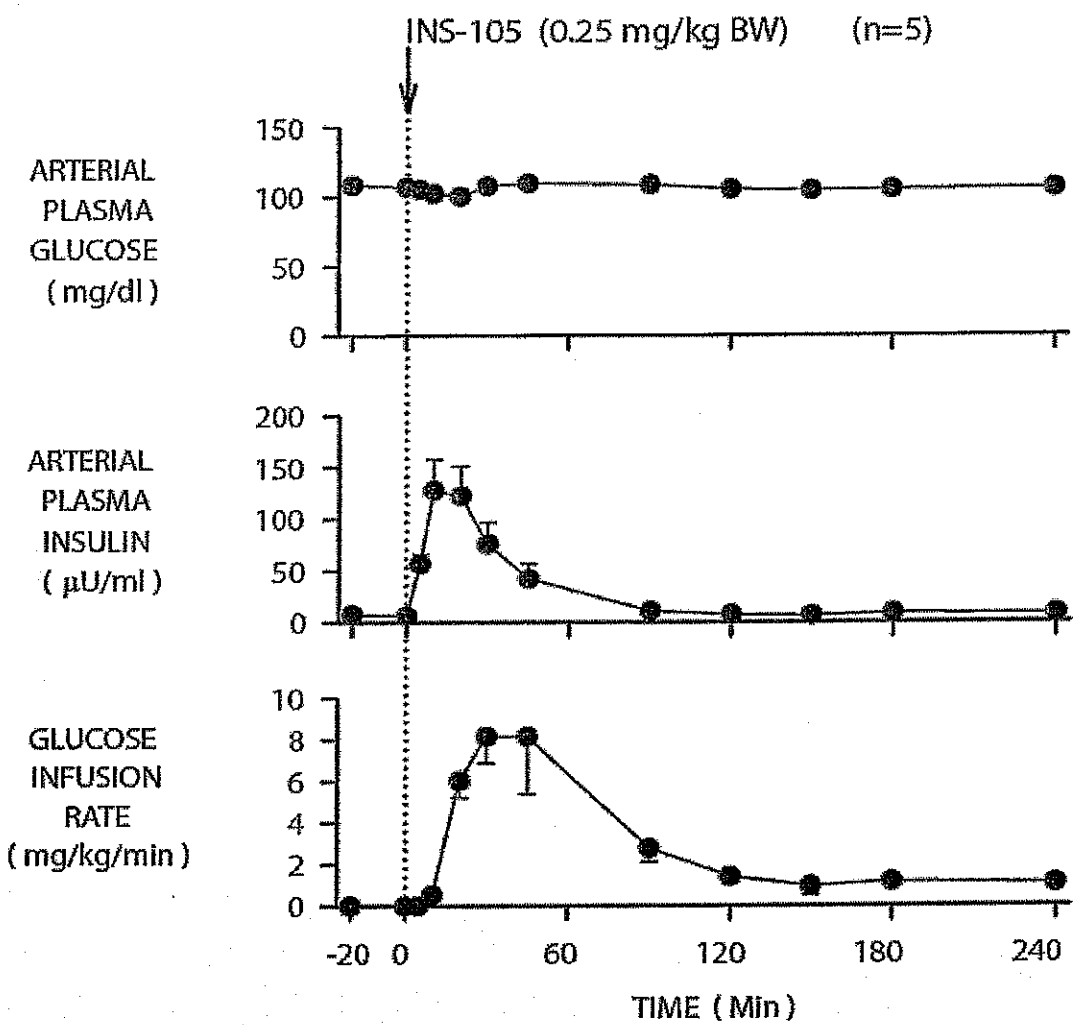

INS-105 (0.25 mg/kg BW) (n=5)
ARTERIAL PLASMA GLUCOSE (mg/dl)
150
100
50
0
ARTERIAL PLASMA INSULIN (µU/ml)
200
150
100
50
0
GLUCOSE INFUSION RATE (mg/kg/min)
10
8
6
4
2
0
-20
0
60
120
180
240
TIME (Min)

Figure 28

IN-105 in Oral Liquid Formulation [820]
Formulation Contains 3.0% Caprate
Oral dose 0.25 mg/kg
Arterial Plasma Glucose, Glucose Infusion Rate, and Arterial Plasma Insulin

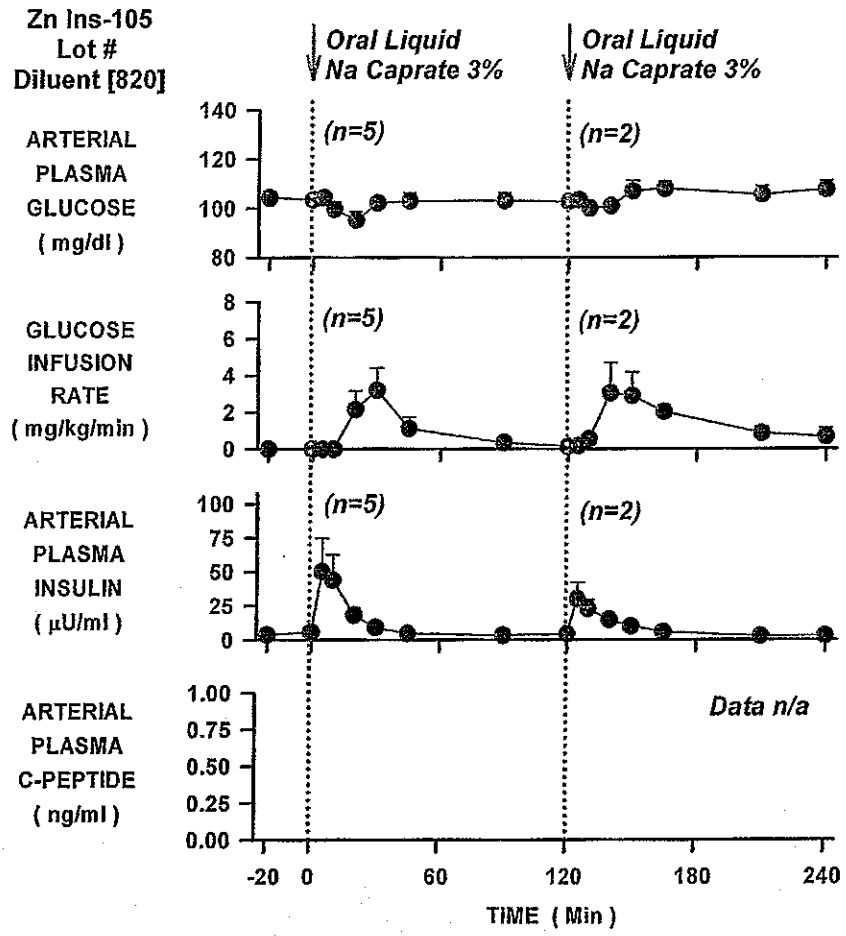


Figure 29

IN-105 in Oral Liquid Formulation [820]
Formulation Contains 3.0% Caprate
Oral dose 0.25 mg/kg
Area Under Curve for Arterial Plasma Insulin and Glucose Infusion Rate

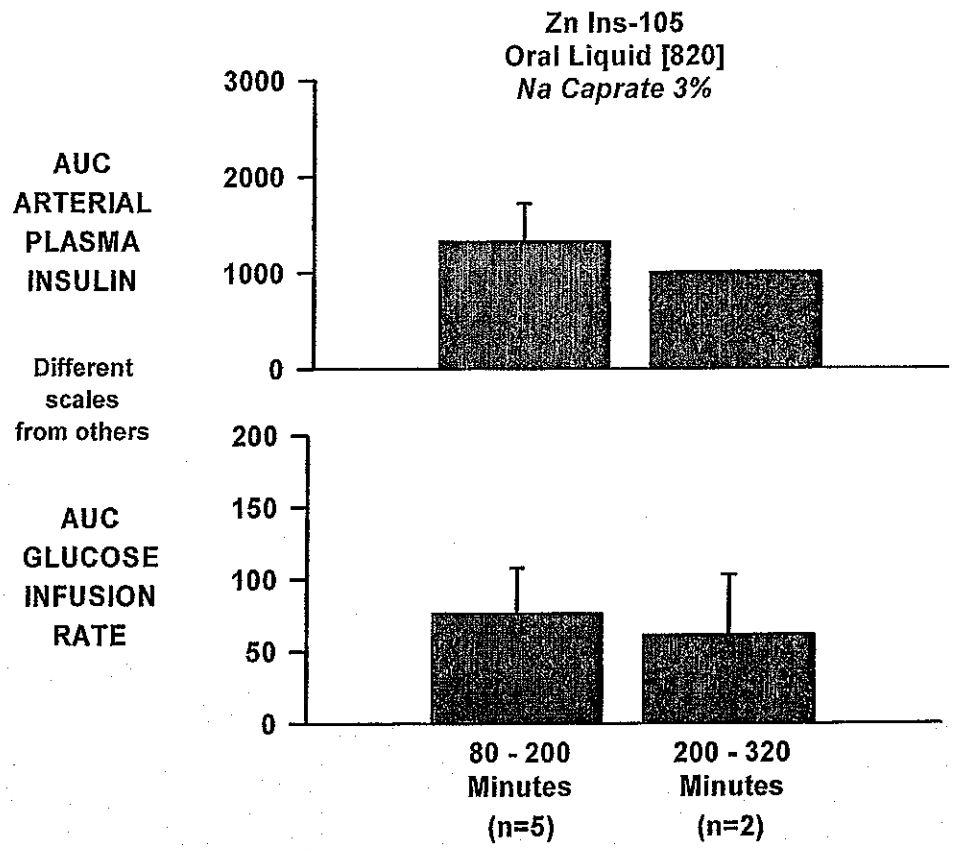


Figure 30

Tablet Formulation [856]
Formulation Contains 143 mg Caprate and 140 mg Laurate per Tablet
Oral dose 0.25 mg/kg
Arterial Plasma Glucose, Glucose Infusion Rate, and Arterial Plasma Insulin

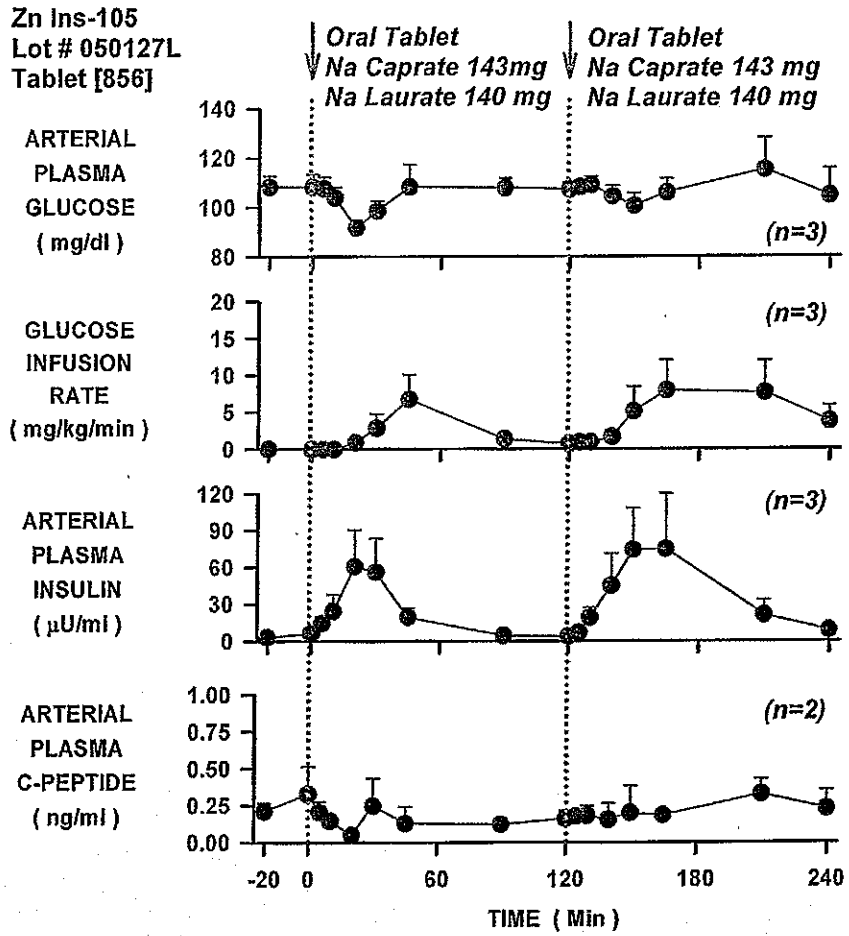


Figure 31

Tablet Formulation [856]
Formulation Contains ~140 mg/ 140mg Caprate and Luarate per Tablet
Oral dose 0.25 mg/kg
Area Under Curve for Arterial Plasma Insulin and Glucose Infusion Rate

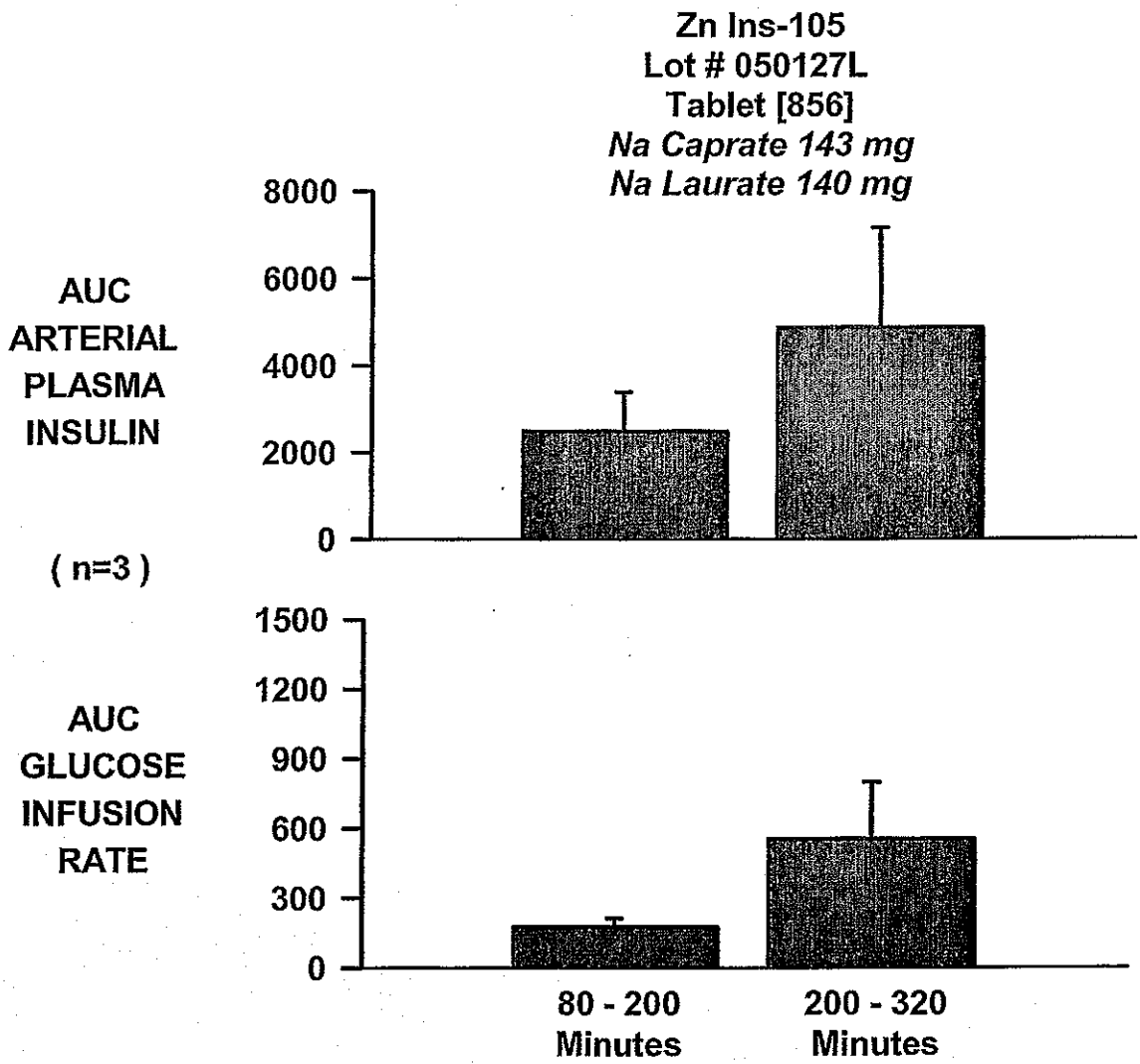


Figure 32

Solid Dosage Form (Tablets) Formulation [854]
Formulation Contains 58 mg Caprate and 57 mg Laurate per Tablet
Oral dose 0.25 mg/kg
Arterial Plasma Glucose, Glucose Infusion Rate, and Arterial Plasma Insulin

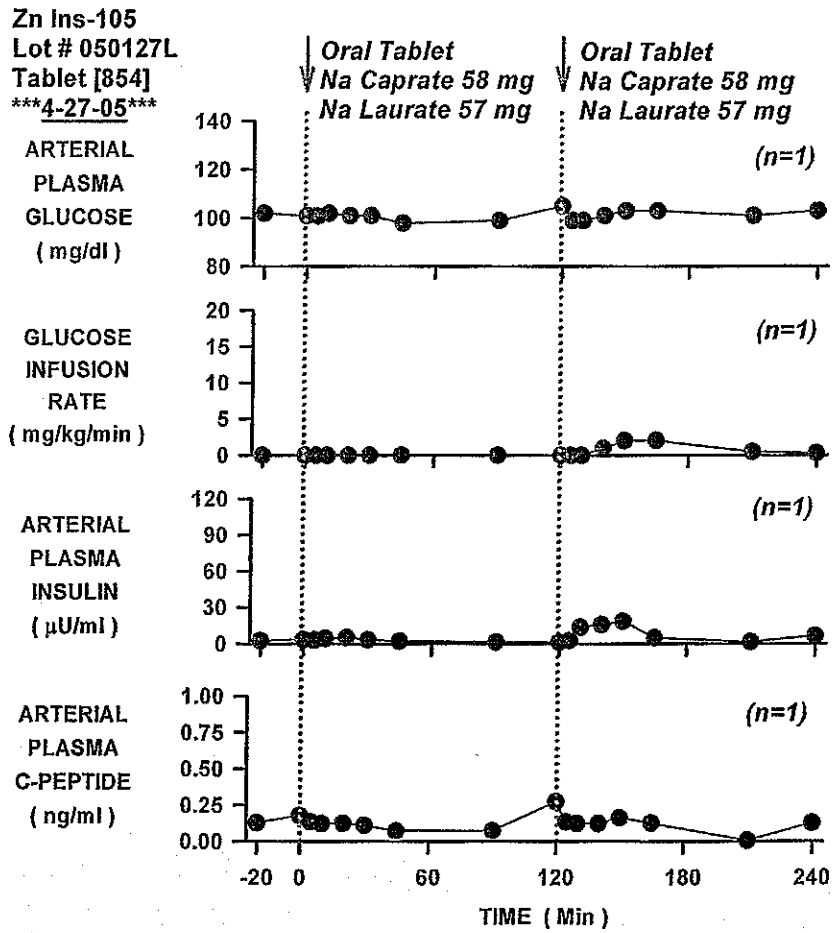
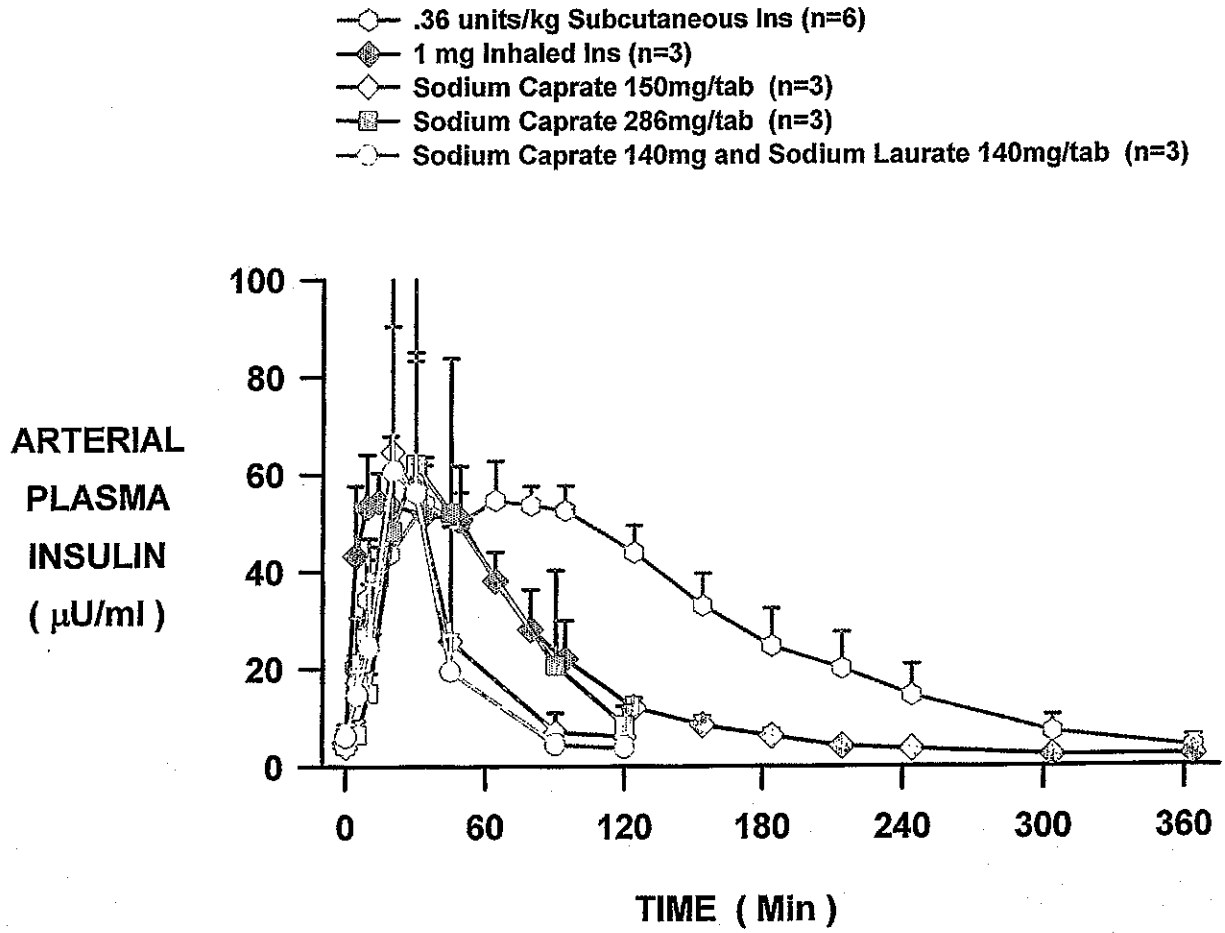


Figure 33

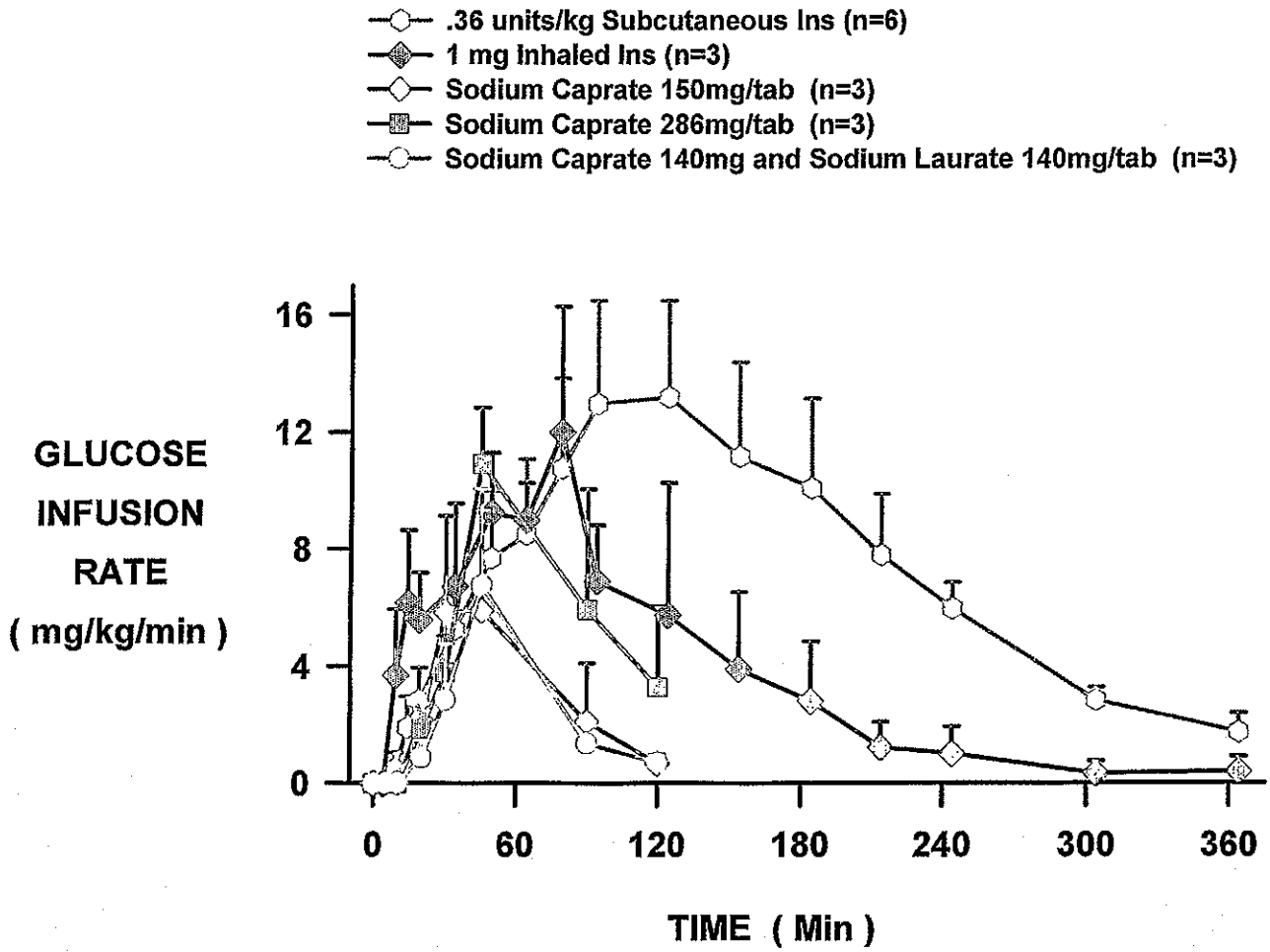
Arterial plasma insulin levels after dosing of prototype tablets of ZN IN-105 (6mg or 0.25mg/kg dose) and comparison with SQ* and inhale* dosing of regular insulin



* Historic data from the same dog model

Figure 34

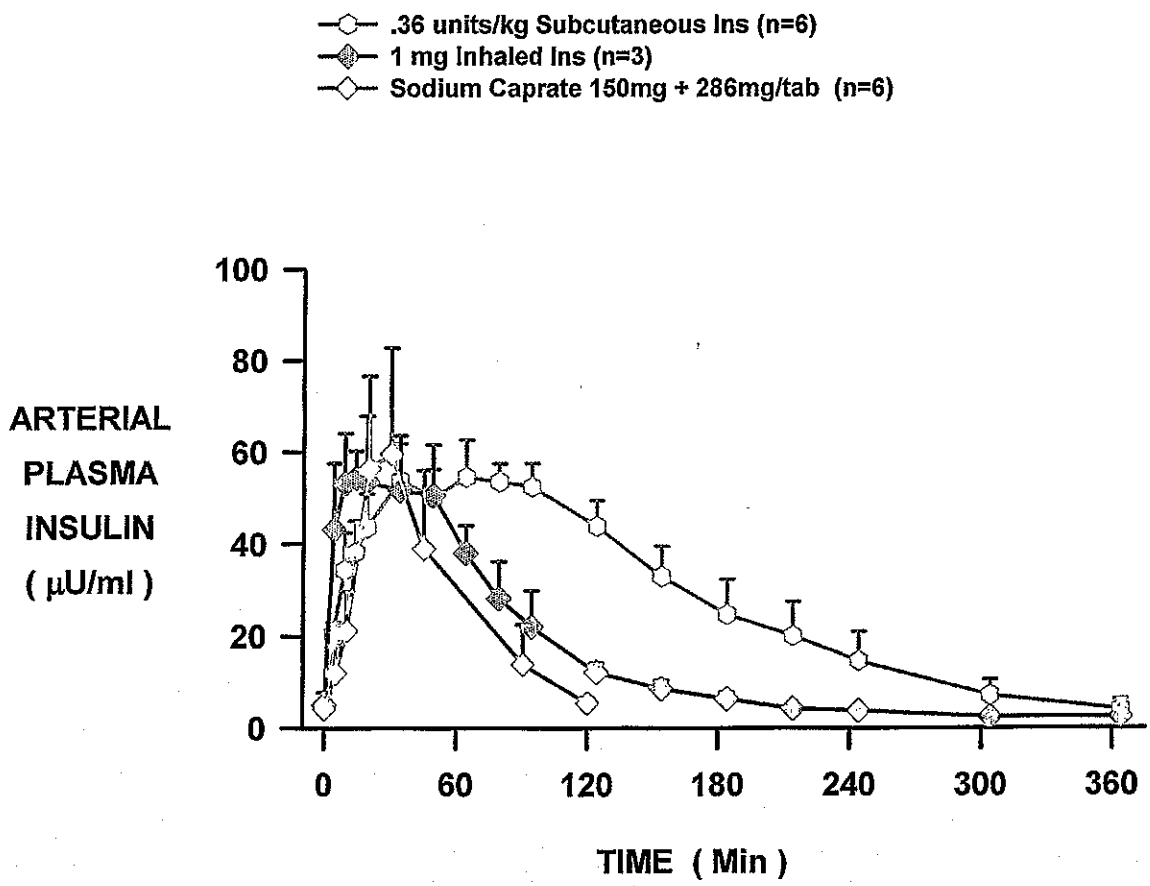
Glucose infusion rate (GIR) after dosing of prototype tablets of ZN IN-105 (6mg or 0.25mg/kg dose) and comparison with SQ* and inhale* dosing of regular insulin



* Historic data from the same dog model

Figure 35

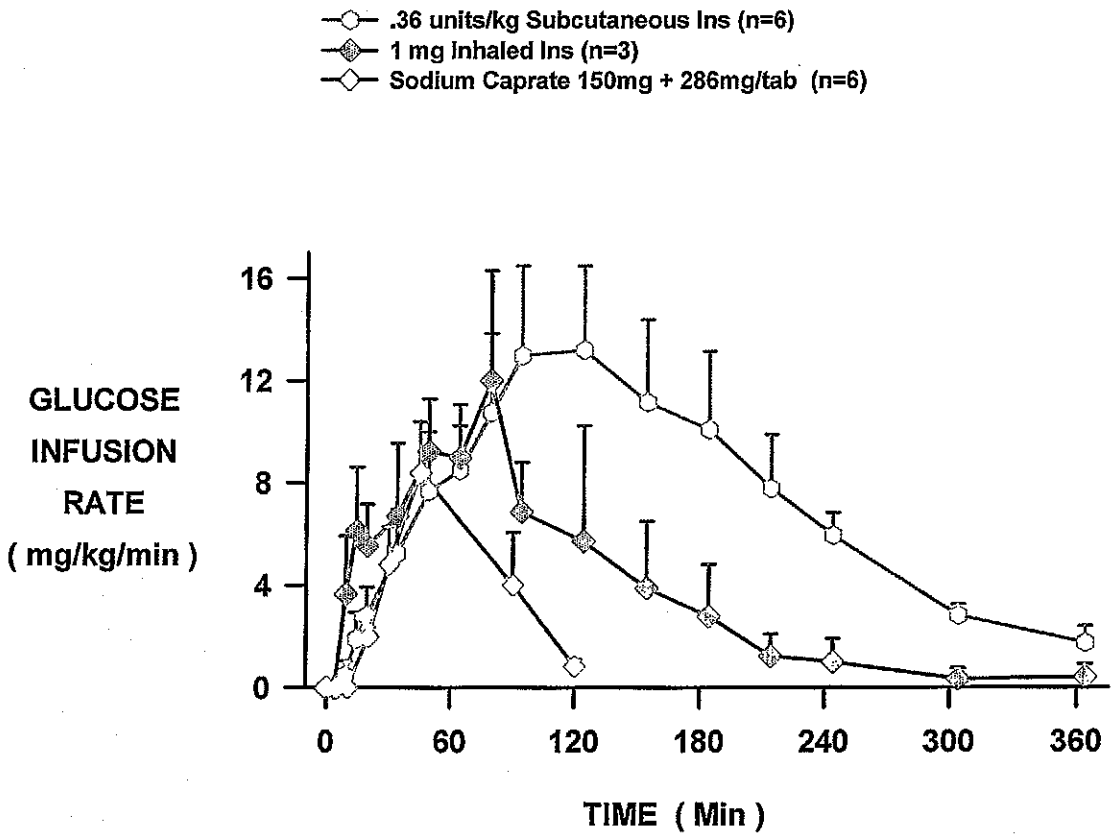
Arterial plasma insulin levels after dosing of selected prototype tablets of ZN IN-105 and comparison with SQ* and inhale* dosing of regular insulin, formulation Contains 150 mg and 280 mg Caprate per Tablet Oral dose 0.25 mg/kg



* Historic data from the same dog model

Figure 36

Glucose infusion rate (GIR) after dosing of selected prototype tablets of ZN IN-105 and comparison with SQ* and inhale* dosing of regular insulin, Formulation Contains 150 mg and 280 mg Caprate per Tablet, Oral dose 0.25 mg/kg



* Historic data from the same dog model

Figure 37

Tablet Formulation [860]
Formulation Contains 286 mg Caprate per Tablet
Oral dose 0.25 mg/kg
Arterial Plasma Glucose, Glucose Infusion Rate, Arterial Plasma Insulin and C-peptide Levels

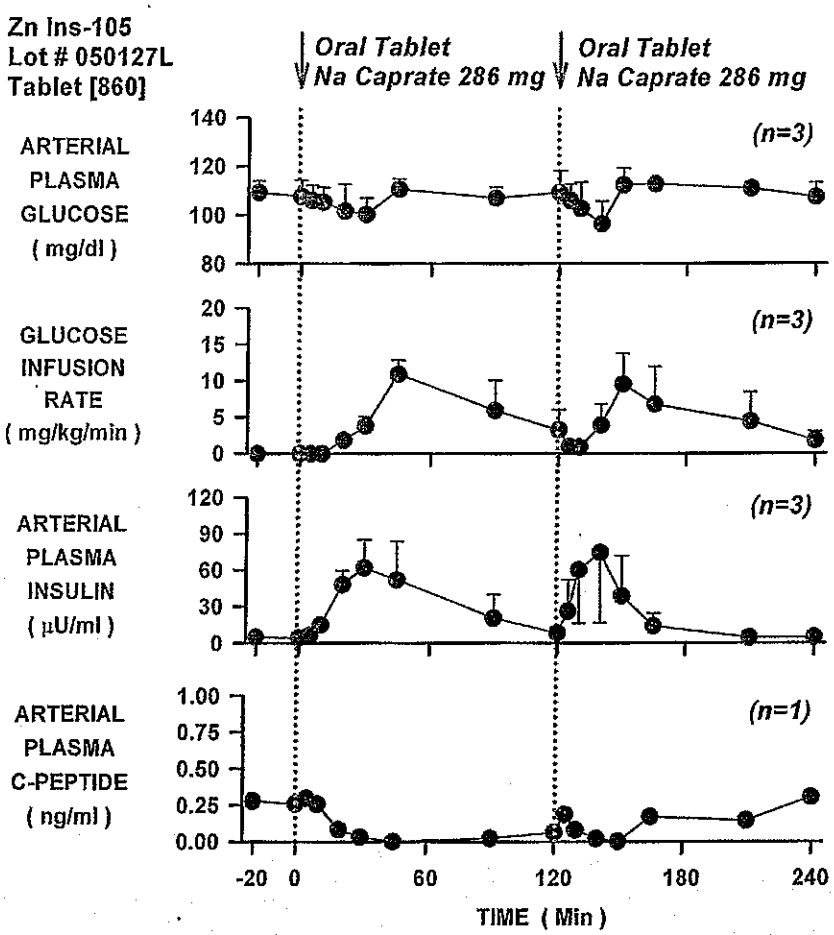


Figure 38

Tablet Formulation [860]
Formulation Contains 286 mg Caprate per Tablet
Oral dose 0.25 mg/kg
Area Under Curve for Arterial Plasma Insulin and Glucose Infusion Rate

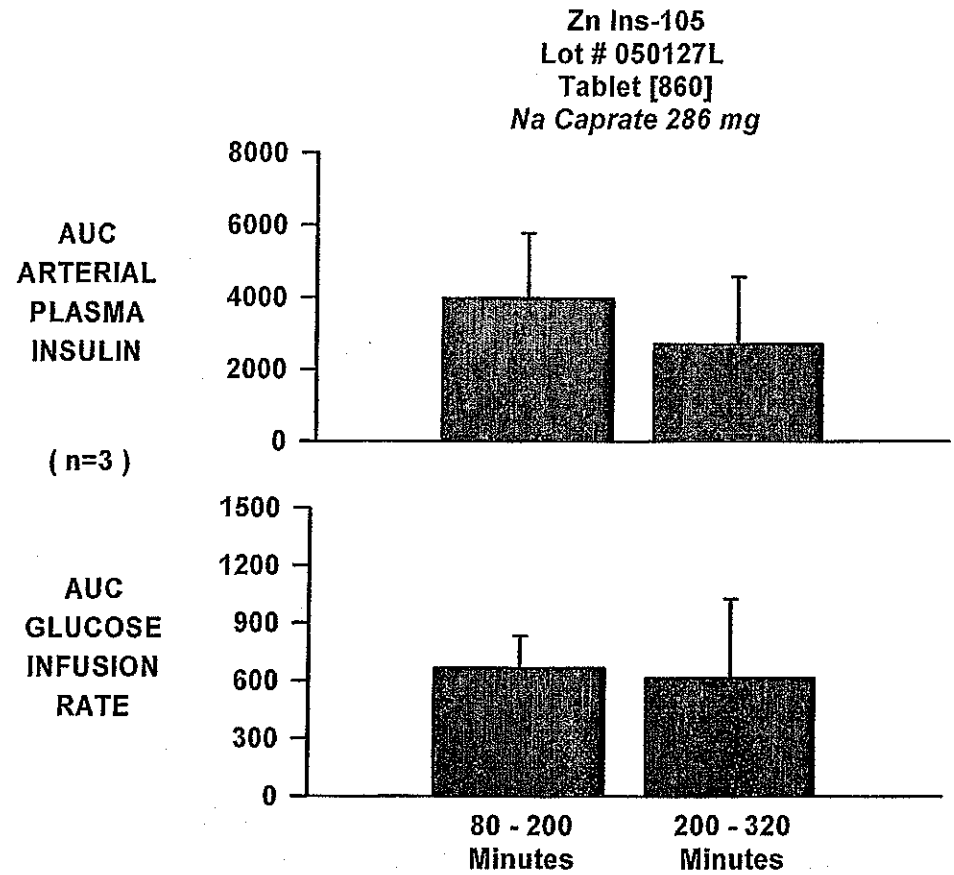


Figure 39

Tablet Formulations [862]/[859]
Formulation Contains 150 mg Caprate per Tablet
Oral dose 0.25 mg/kg
Arterial Plasma Glucose, Glucose Infusion Rate, Arterial Plasma Insulin and C-Peptide Levels

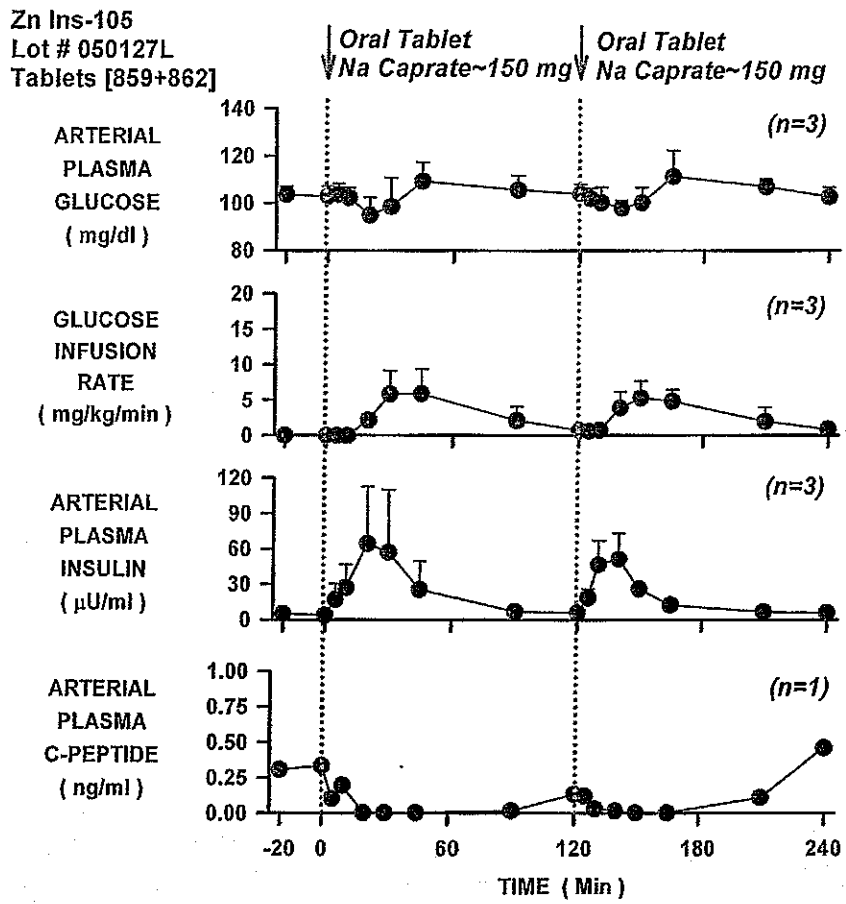


Figure 40

Tablet Formulation [862] and [859]
Formulation Contains ~150 mg Caprate per Tablet
Oral dose 0.25 mg/kg
Area Under Curve for Arterial Plasma Insulin and Glucose Infusion Rate

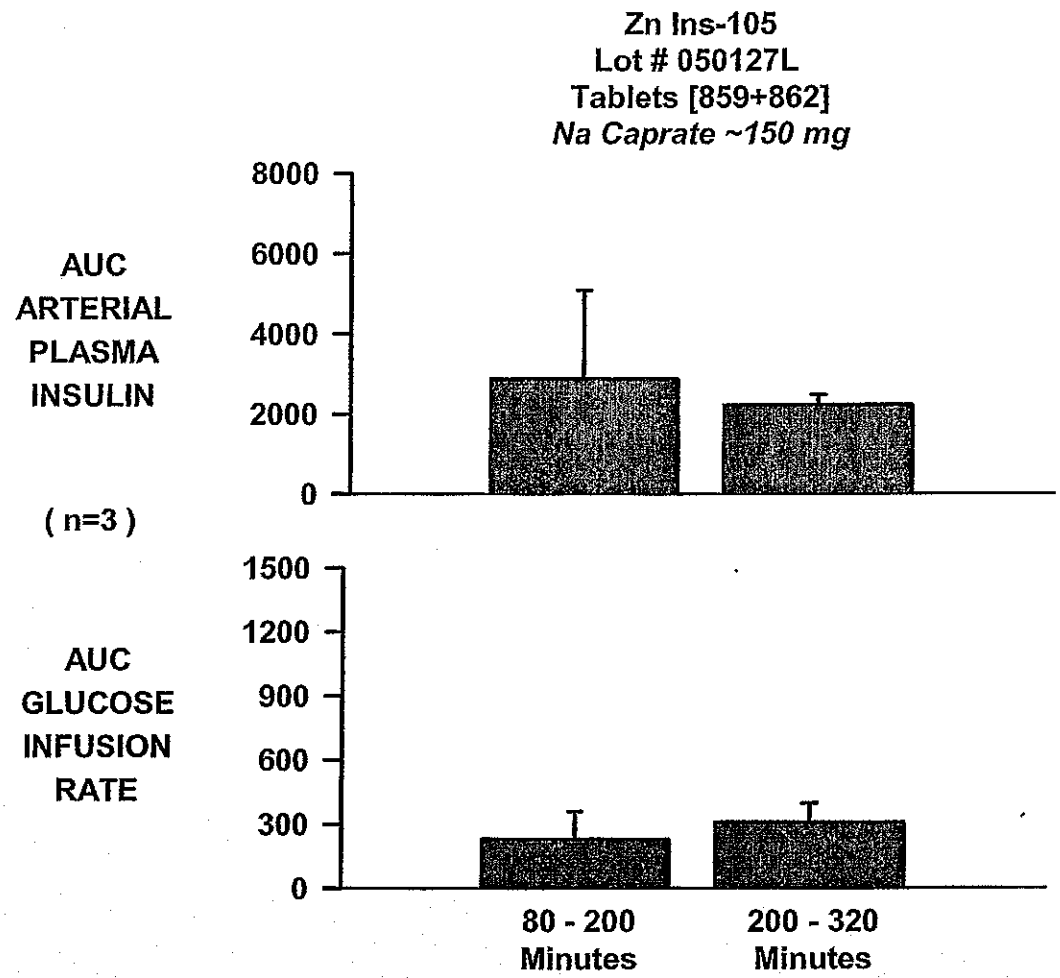


Figure 41

Tablet Formulation [856]
Formulation Contains ~140 mg/ 140mg Caprate and Luarate per Tablet
Oral dose 0.25 mg/kg
Area Under Curve for Arterial Plasma Insulin and Glucose Infusion Rate

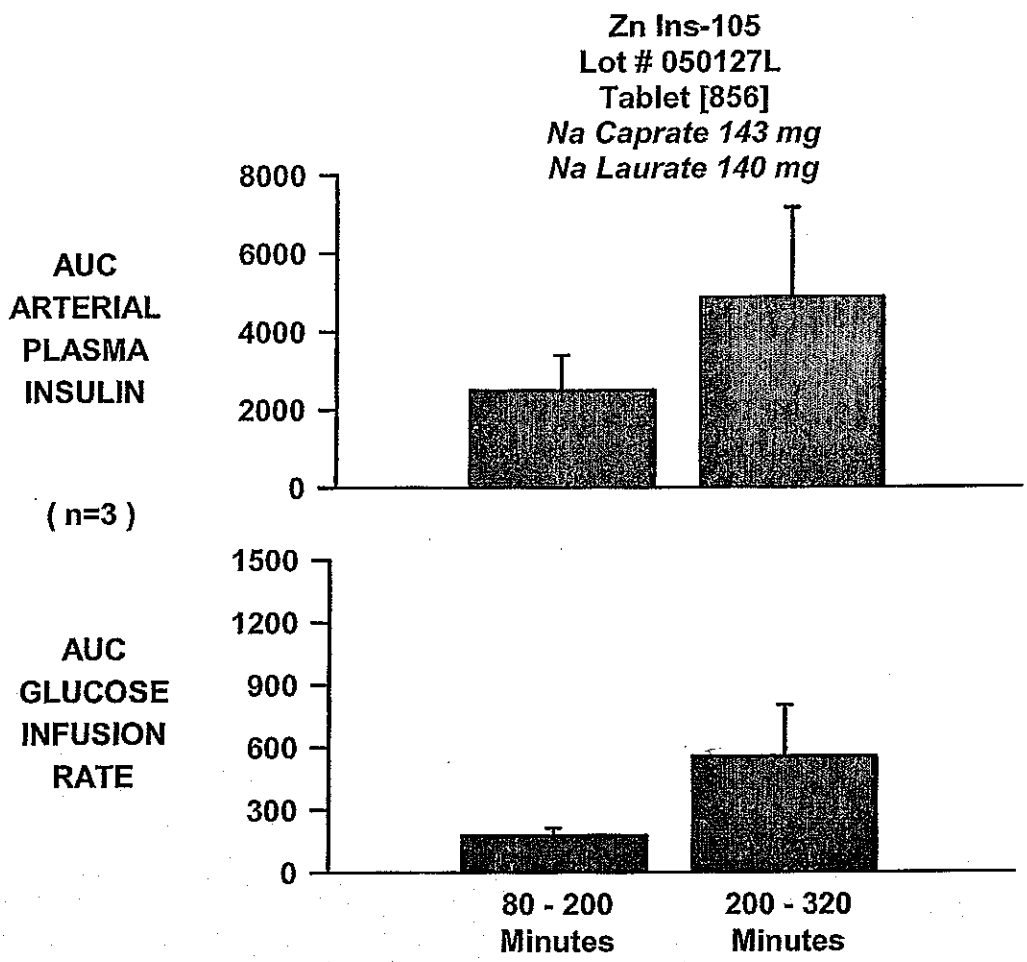


Figure 42