

Now you have the Key to Saving Time, Labor, and Research Costs



Introducing Crystal Chem's newest cutting edge ELISA kits:

Ultra Sensitive Mouse Insulin ELISA Kit

- High and Low insulin assay – using the same kit
- Includes mouse insulin standard
- Small sample volume – only 5 μ l (serum, plasma or fluid)
- High sensitivity using 5 μ l sample
- Same day assay

Rat Leptin ELISA Kit

- Includes rat leptin standard
- Small sample volume – only 5 μ l (serum, plasma or fluid)
- High sensitivity using 5 μ l sample
- Pretreatment of sample not required



All our ELISA kits offer these important advantages

- High sensitivity
- 5 μ l sample volume
- Excellent accuracy and precision



CRYSTAL CHEM INC.

Ultra Sensitive Mouse Insulin ELISA Kit

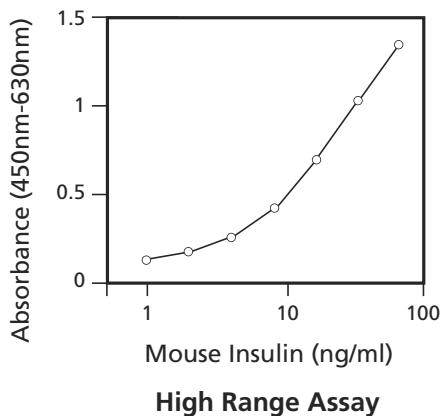
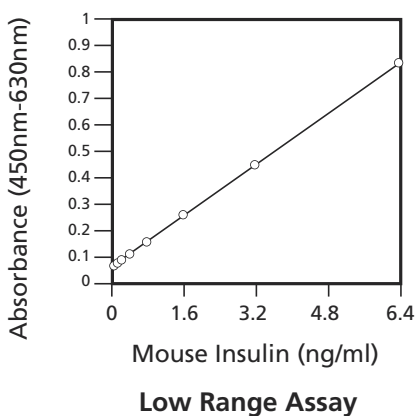
- Sample Size:** 5µl
- Samples:** Serum, plasma or fluid
- Tests:** 96 wells (8 wells x 12 modules)
- Reagents:** In liquid form (except standard)
- Assay Range:** Low Range Assay: 0.1 – 6.4 ng/ml
Wide Range Assay: 0.1 – 12.8 ng/ml*
High Range Assay: 1 – 64 ng/ml
- * Intended for screening purposes.
- Assay Time:** Same day procedure
- Precision:** Intra-assay precision CV ≤ 10.0%
Inter-assay precision CV ≤ 10.0%
- Recovery:** When mouse insulin was spiked into mouse serum, the recovery of mouse insulin was 100%±15%

Specificity:

Substance	Reactivity
Mouse insulin	100%
Rat insulin	100%*
Rat C-peptide	Not detected
Rat pancreatic polypeptide	Not detected
Porcine glucagons	Not detected
Human insulin like growth factor-I	Not detected
Human insulin like growth factor-II	Not detected

* Can vary from lot to lot. Specific cross-reactivity data is included with each kit.

Typical Standard Curves:

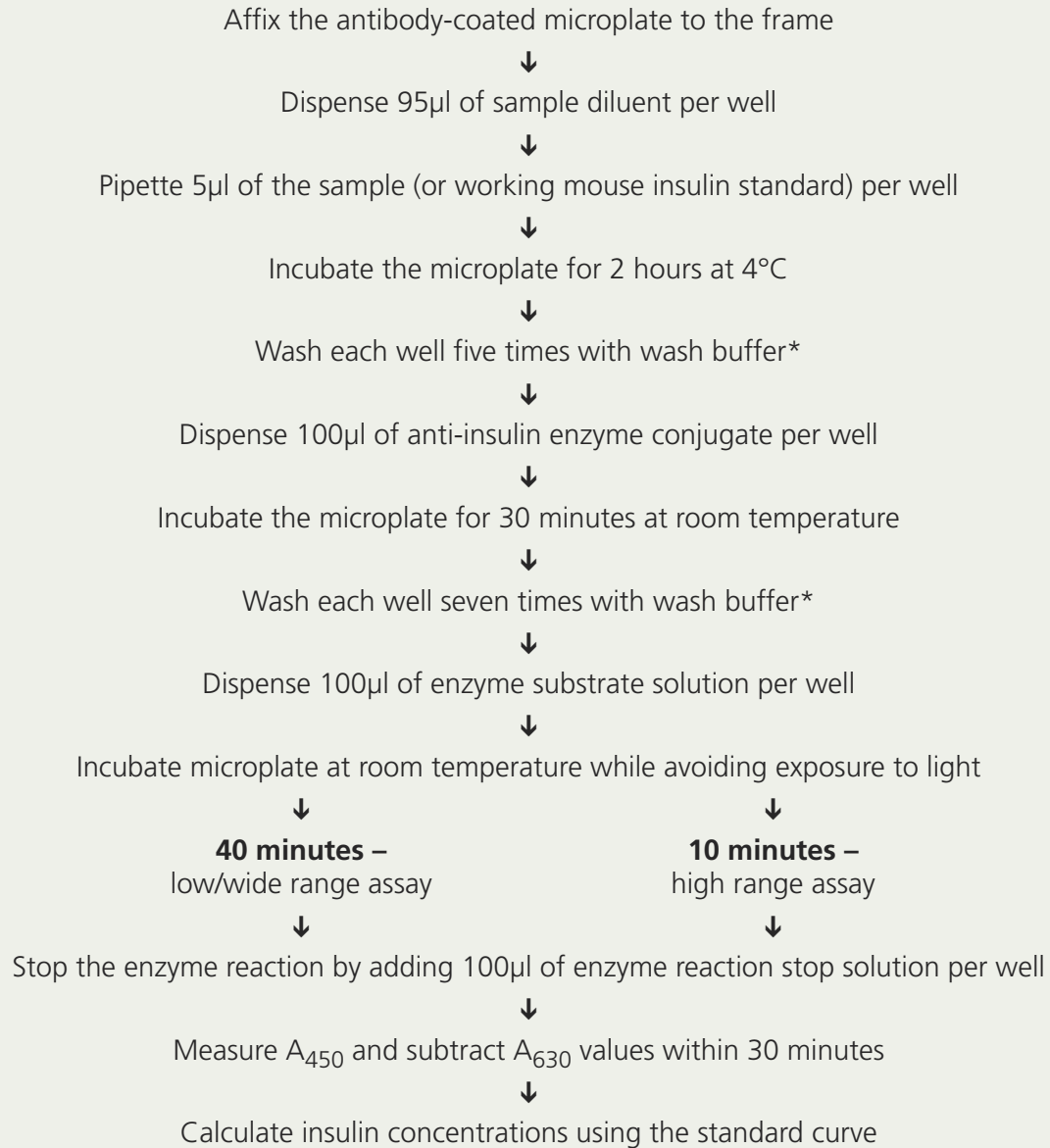


Highlights:

- **Small Sample Volume:** Only 5µl
- **High Sensitivity:** 100 pg/ml using 5µl sample and 5 pg/ml using 100µl sample
- **Both Low and High Insulin Assay:** Using same kit
- **Precision:** Intra-assay and inter-assay precision CV ≤ 10.0%
- **Protocol:** Same protocol for serum, plasma or fluid assay

Summary of Assay

Ultra Sensitive Mouse Insulin ELISA Kit (Cat# 90080)



* Each well should be washed with 300µl of wash buffer. Aspirate the wells completely so all excess solution is removed.

Ultra Sensitive Rat Insulin ELISA Kit

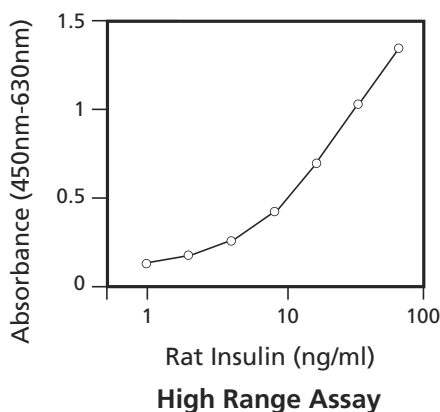
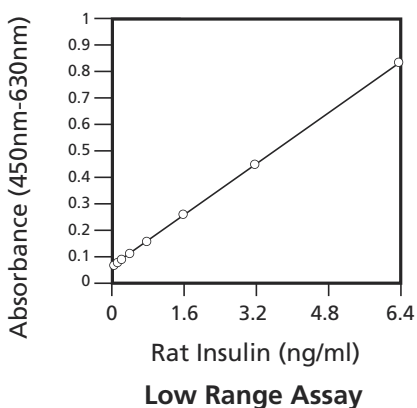
- Sample Size:** 5µl
- Samples:** Serum, plasma or fluid
- Tests:** 96 wells (8 wells x 12 modules)
- Reagents:** In liquid form (except standard)
- Assay Range:** Low Range Assay: 0.1 – 6.4 ng/ml
Wide Range Assay: 0.1 – 12.8 ng/ml*
High Range Assay: 1 – 64 ng/ml
- * Intended for screening purposes.
- Assay Time:** Same day procedure
- Precision:** Intra-assay precision CV ≤ 10.0%
Inter-assay precision CV ≤ 10.0%
- Recovery:** When rat insulin was spiked into rat serum, the recovery of rat insulin was 100%±10%

Specificity:

Substance	Reactivity
Rat insulin	100%
Mouse insulin	100%*
Rat C-peptide	Not detected
Rat pancreatic polypeptide	Not detected
Porcine glucagons	Not detected
Human insulin like growth factor-I	Not detected
Human insulin like growth factor-II	Not detected

* Can vary from lot to lot. Specific cross-reactivity data is included with each kit.

Typical Standard Curves:

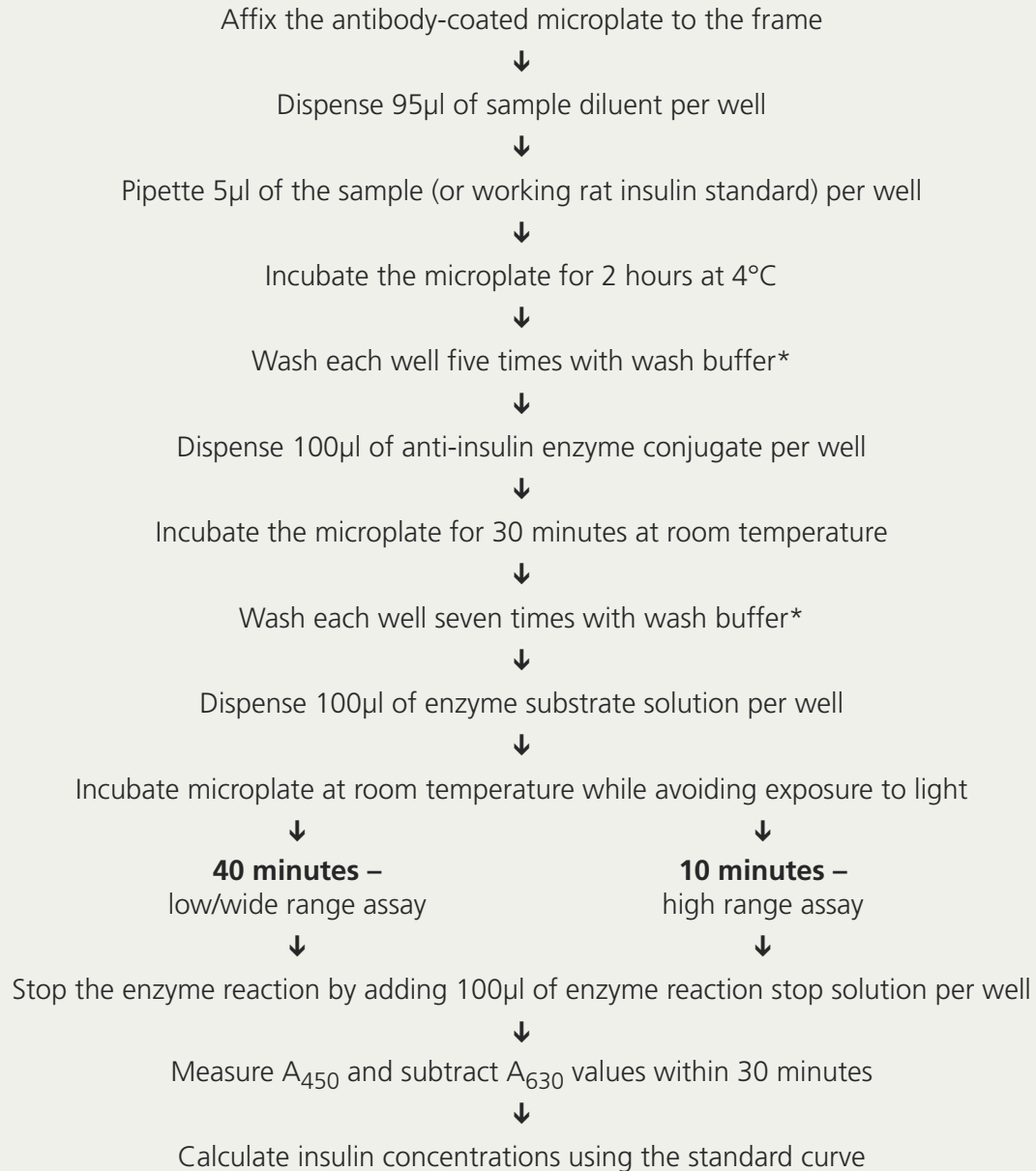


Highlights:

- **Small Sample Volume:** Only 5µl
- **High Sensitivity:** 100 pg/ml using 5µl sample and 5 pg/ml using 100µl sample
- **Both Low and High Insulin Assay:** Using same kit
- **Precision:** Intra-assay and inter-assay precision CV ≤ 10.0%
- **Protocol:** Same protocol for serum, plasma or fluid assay

Summary of Assay

Ultra Sensitive Rat Insulin ELISA Kit (Cat# 90060)



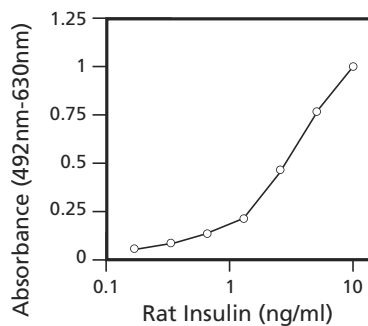
* Each well should be washed with 300µl of wash buffer. Aspirate the wells completely so all excess solution is removed.

- Sample size:** 5µl for serum or plasma
50µl for fluid
- Samples:** Serum, plasma or fluid
- Tests:** 96 wells (8 wells x 12 modules)
- Reagents:** In lyophilized form
- Assay Range:** 0.156 – 10.0 ng/ml for serum or plasma
0.039 – 2.5 ng/ml for fluid
- Assay Time:** Overnight procedure
- Precision:** Intra-assay precision CV ≤ 10.0%
Inter-assay precision CV ≤ 10.0%
- Recovery:** When rat insulin was spiked into rat serum, the recovery of rat insulin was 100%±10%
- Specificity:**

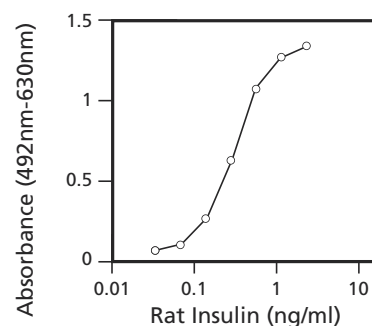
Substance	Reactivity
Rat insulin	100%
Mouse insulin	105%*
Porcine insulin	160%*
Hamster insulin	Detected*
Human insulin (recombinant)	Detected*
Human Proinsulin	Detected*
Rat C-peptide	Not detected
Rat pancreatic polypeptide	Not detected
Porcine glucagon	Not detected
Human insulin like growth factor-I	Not detected
Human insulin like growth factor-II	Not detected

* Can vary from lot to lot. Specific cross-reactivity data is included with each kit.

Typical Standard Curves:



Serum or Plasma Assay



Fluid Assay

Mouse Insulin Assay:

Using Optional Mouse Insulin Standard 2ng (Cat# INSSM021)

Highlights:

- **Small Sample Volume:** Only 5µl
- **High Sensitivity:** 156 pg/ml using 5µl sample of serum or plasma
- **Precision:** Intra-assay and inter-assay precision CV ≤ 10.0%

Summary of Assay

Rat Insulin ELISA Kit (Cat# INSKR020)

Serum or plasma assay

Fluid assay

Each well of the microplate is washed twice with wash buffer*

↓
Dispense 50µl of guinea pig anti-insulin serum per well (reconstituted by **Sample Diluent 2**)

↓
Dispense 50µl of guinea pig anti-insulin serum per well (reconstituted by **Sample Diluent 1**)

↓
Dispense 45µl of **Sample Diluent 2** and 5µl of sample (or 5µl working insulin standard reconstituted by **Sample Diluent 2**) per well

↓
Dispense 50µl of sample (or 50µl working insulin standard reconstituted by **Sample Diluent 1**) per well

↓
Incubate the microplate overnight at 4°C

↓
Wash the well three times with wash buffer*

↓
Dispense 100µl of anti-guinea pig antibody enzyme conjugate per well

↓
Incubate the microplate for 3 hours at room temperature

↓
Wash the well five times with wash buffer*

↓
Dispense 100µl of enzyme substrate solution per well

↓
Incubate microplate for 30 minutes at room temperature while avoiding exposure to light

↓
Stop the reaction by adding 50µl of enzyme reaction stop solution per well

↓
Immediately measure A_{492} and subtract A_{630} values

↓
Calculate insulin concentrations using the standard curve

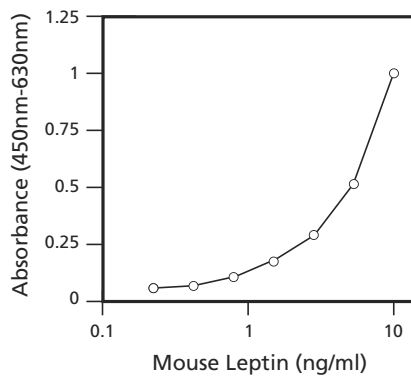
* Each well should be washed with 300µl of wash buffer. Aspirate the wells completely so all excess solution is removed.

- Sample Size:** 5µl
- Samples:** Serum, plasma or fluid
- Tests:** 96 wells (8 wells x 12 modules)
- Reagents:** In liquid form (except standard)
- Assay Range:** 0.2 – 12.8 ng/ml
- Assay Time:** Overnight procedure
- Precision:** Intra-assay precision CV ≤ 10.0%
Inter-assay precision CV ≤ 10.0%
- Recovery:** When mouse leptin was spiked into mouse serum, the recovery of mouse leptin was 100.0% ± 20%
- Specificity:**

Substance	Reactivity
r-Mouse leptin	100%
r-Rat leptin	100%*
r-Human leptin	40%*
Mouse Insulin	Not detected
Rat C-Peptide	Not detected
Rat pancreatic polypeptide	Not detected
Glucagon (1-37)	Not detected
Glucagon (1-29)	Not detected
r-Human Insulin like growth factor-I	Not detected
r-Human Insulin like growth factor-II	Not detected
Human Somatostatin	Not detected

* Can vary from lot to lot. Specific cross-reactivity data is included with each kit.

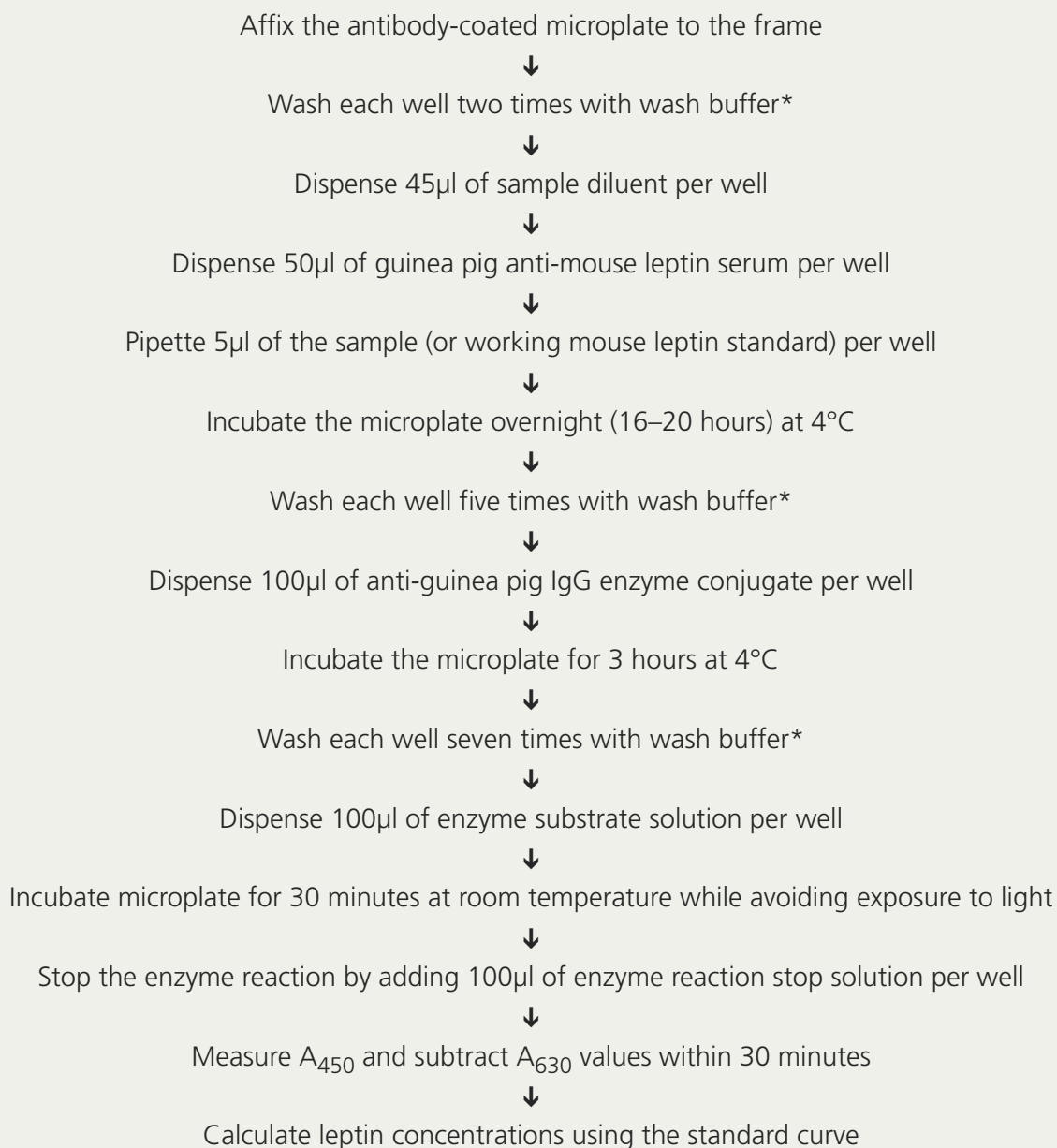
Typical Standard Curve:



- Highlights:**
- **Small Sample Volume:** Only 5µl
 - **High Sensitivity:** 200 pg/ml using 5µl sample
 - **Precision:** Intra-assay and inter-assay precision CV ≤ 10.0%

Summary of Assay

Mouse Leptin ELISA Kit (Cat# 90030)



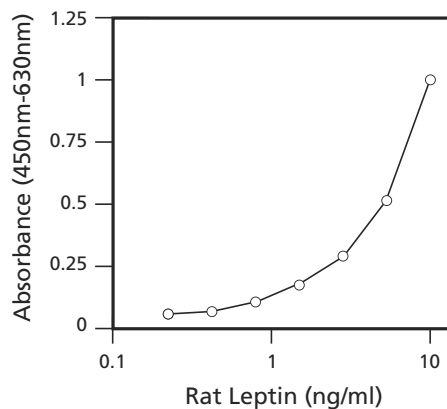
* Each well should be washed with 300µl of wash buffer. Aspirate the wells completely so all excess solution is removed.

- Sample Size:** 5µl
- Samples:** Serum, plasma or fluid
- Tests:** 96 wells (8 wells x 12 modules)
- Reagents:** In liquid form (except standard)
- Assay Range:** 0.2 – 12.8 ng/ml
- Assay Time:** Overnight procedure
- Precision:** Intra-assay precision CV ≤ 10.0%
Inter-assay precision CV ≤ 10.0%
- Recovery:** When rat leptin was spiked into rat serum, the recovery of rat leptin was 100.0% ± 20%
- Specificity:**

Substance	Reactivity
r-Rat leptin	100%
r-Mouse leptin	100% *
r-Human leptin	40% *
Mouse insulin	Not Detected
Rat C-Peptide	Not Detected
Rat pancreatic polypeptide	Not Detected
Glucagon (1-37)	Not Detected
Glucagon (1-29)	Not Detected
r-Human insulin like growth factor-I	Not Detected
r-Human insulin like growth factor-II	Not Detected

* Can vary from lot to lot. Specific cross-reactivity data is included with each kit.

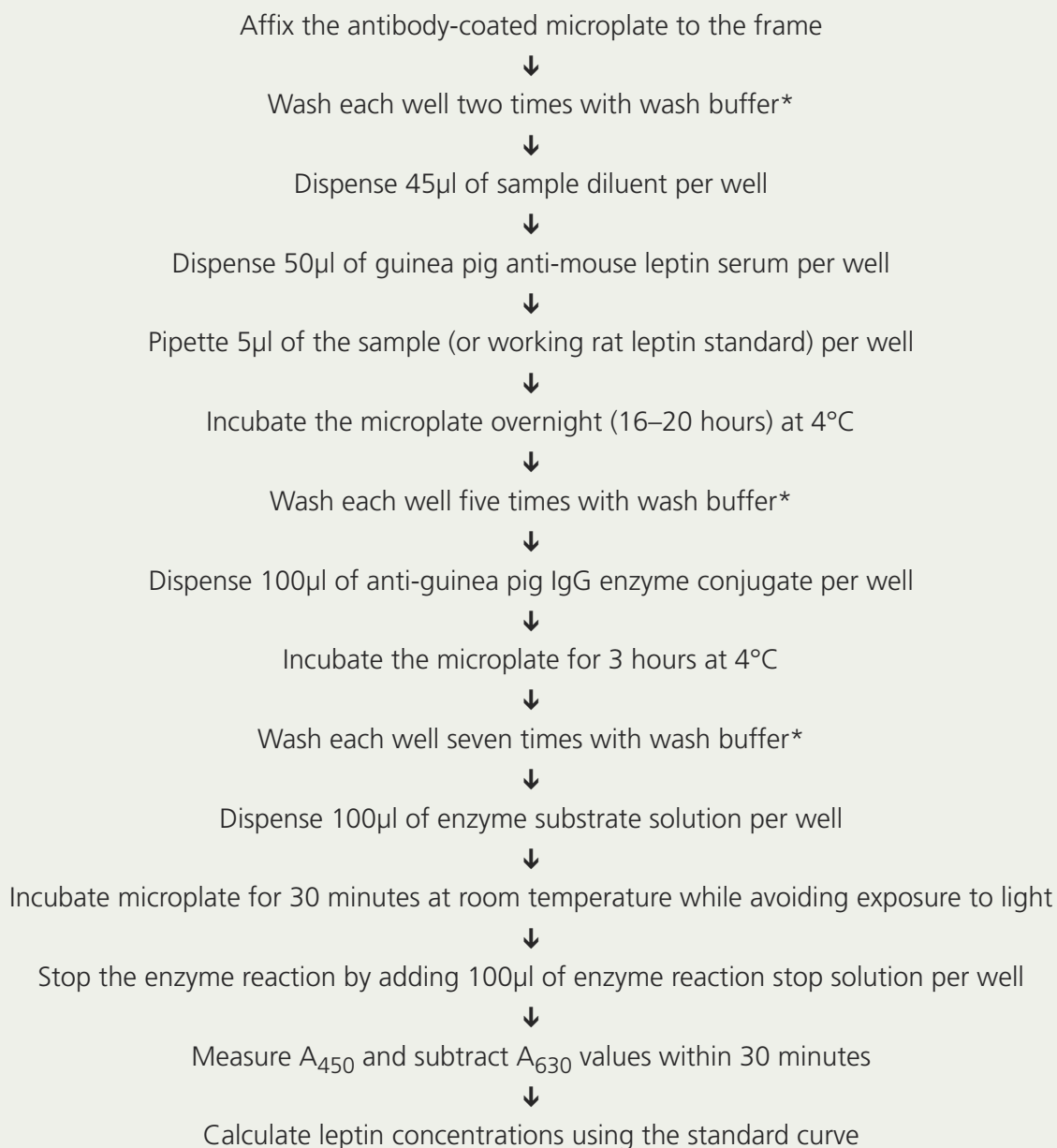
Typical Standard Curve:



- Highlights:**
- **Small Sample Volume:** Only 5µl
 - **High Sensitivity:** 200 pg/ml using 5µl sample
 - **Precision:** Intra-assay and inter-assay precision CV ≤ 10.0%

Summary of Assay

Rat Leptin ELISA Kit (Cat# 90040)



* Each well should be washed with 300µl of wash buffer. Aspirate the wells completely so all excess solution is removed.

Comparison Chart

Crystal Chem Rat/Mouse Insulin ELISA Kits

Catalog#	90080	90060	INSKR020
Product	Ultra Sensitive Mouse Insulin ELISA Kit	Ultra Sensitive Rat Insulin ELISA Kit	Rat Insulin ELISA Kit
Sample Size Serum or Plasma	5µl	5µl	5µl
Sample size Fluid sample	5µl	5µl	50µl
Number of tests	96 wells	96 wells	96 wells
Assay time	Same day	Same day	Overnight
Reagents	In liquid form (except standard)	In liquid form (except standard)	In lyophilized form
Standard	Mouse insulin	Rat insulin	Rat insulin
Assay range	0.1–6.4 ng/ml Low range assay 0.1–12.8 ng/ml Wide range assay 1.0–64.0 ng/ml High range assay	0.1–6.4 ng/ml Low range assay 0.1–12.8 ng/ml Wide range assay 1.0–64.0 ng/ml High range assay	0.156–10.0 ng/ml for serum or plasma 0.039–2.5 ng/ml for fluid
Number of Protocols	3	3	2
Type of Protocol	1. Low range assay * 2. Wide range assay *, ** 3. High range assay *	1. Low range assay * 2. Wide range assay *, ** 3. High range assay *	1. Serum or Plasma 2. Fluid
Filters	450nm & 630nm	450nm & 630nm	492nm & 630nm
* Same protocol for serum, plasma or fluid assay ** Intended for screening purposes only			

Kit Highlights

- **High Sensitivity:** 100 pg/ml using 5µl sample for Ultra Sensitive Mouse and Rat Insulin Kits.
- **Small Sample Volume:** Only 5µl for serum or plasma. With our advanced technology, you can gain accuracy and precision using small sample volumes.
- **Low and High Insulin Assay Using Same Kit:** You can perform both Low & High range insulin assays using the Ultra Sensitive Mouse Insulin ELISA Kit (Cat# 90080) or Ultra Sensitive Rat Insulin ELISA Kit (Cat# 90060).
- **Excellent Accuracy and Precision:** Intra-assay and inter-assay precision CV ≤ 10.0%.