

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 5µl (serum, plasma or fluid)
- High sensitivity using 5µl sample
- Same day assay

Rat Leptin ELISA Kit

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



All our ELISA kits offer these important advantages

- High sensitivity
- 5µl sample volume
- Excellent accuracy and precision



CRYSTAL CHEM INC.

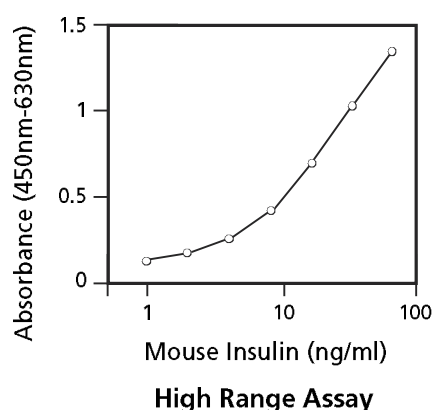
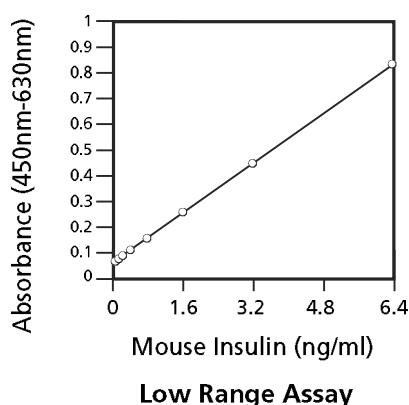
www.atzlabs.com

Catalog#
90080

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: | <table><thead><tr><th><i>Substance</i></th><th><i>Reactivity</i></th></tr></thead><tbody><tr><td>Mouse insulin</td><td>100%</td></tr><tr><td>Rat insulin</td><td>100%*</td></tr><tr><td>Rat C-peptide</td><td>Not detected</td></tr><tr><td>Rat pancreatic polypeptide</td><td>Not detected</td></tr><tr><td>Porcine glucagons</td><td>Not detected</td></tr><tr><td>Human insulin like growth factor-I</td><td>Not detected</td></tr><tr><td>Human insulin like growth factor-II</td><td>Not detected</td></tr></tbody></table> * Can vary from lot to lot. Specific cross-reactivity data is included with each kit. | <i>Substance</i> | <i>Reactivity</i> | 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 |
| <i>Substance</i> | <i>Reactivity</i> | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | |

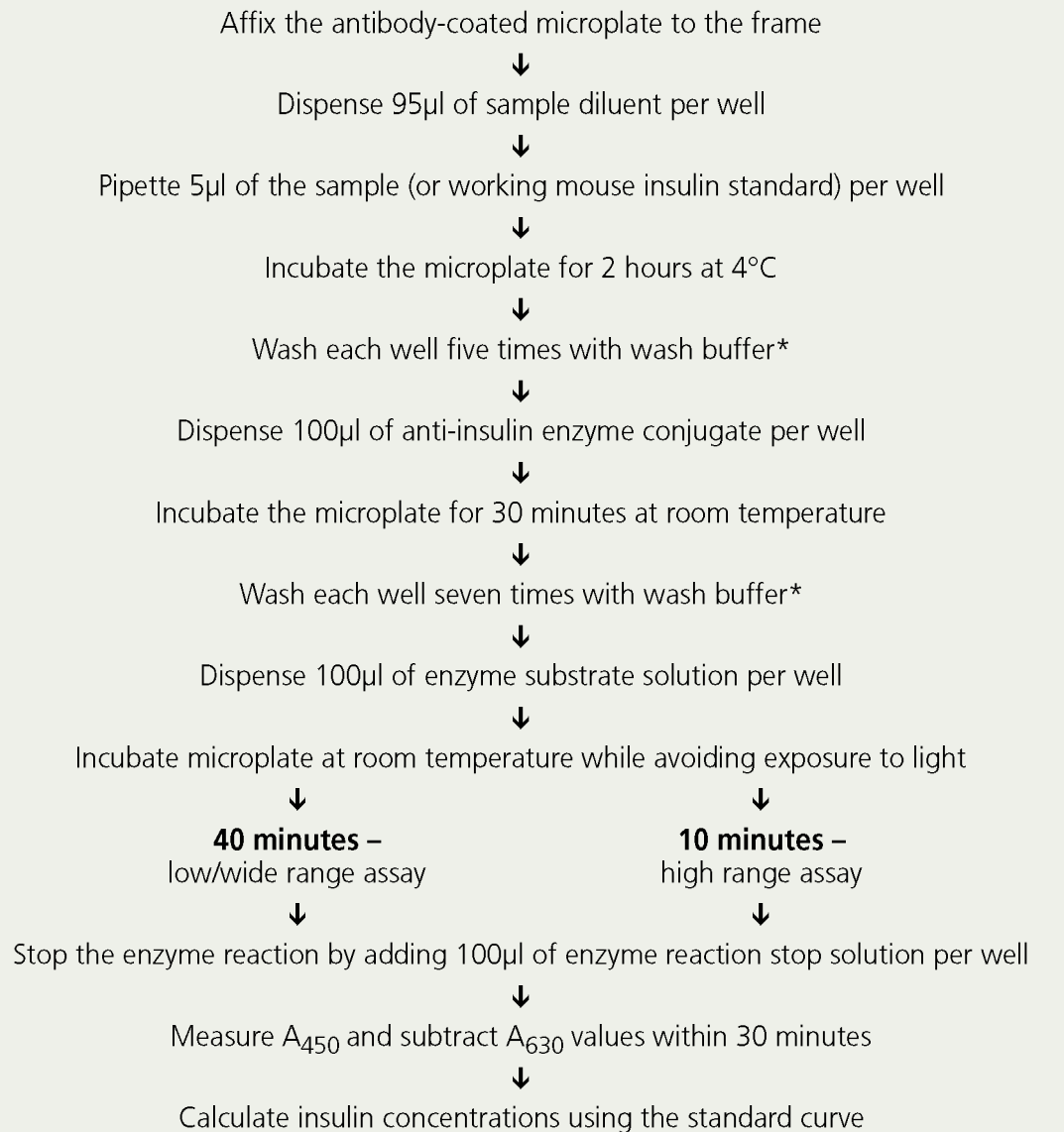
Typical Standard Curves:



- 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.

Catalog#
90060

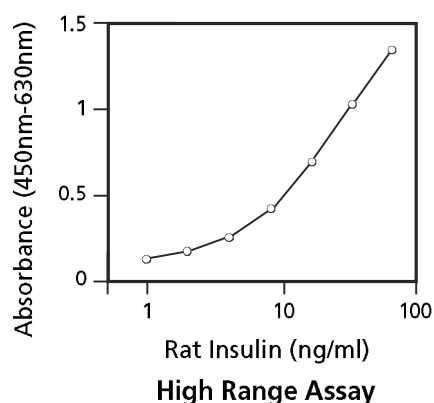
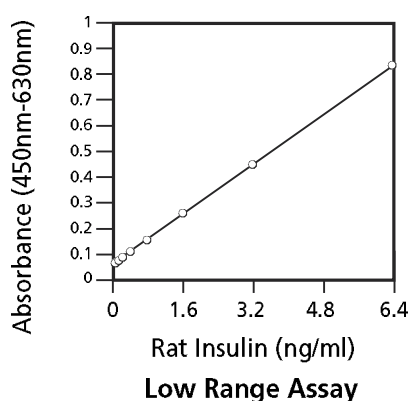
Ultra Sensitive Rat Insulin ELISA Kit

| | |
|---------------------|---|
| 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.

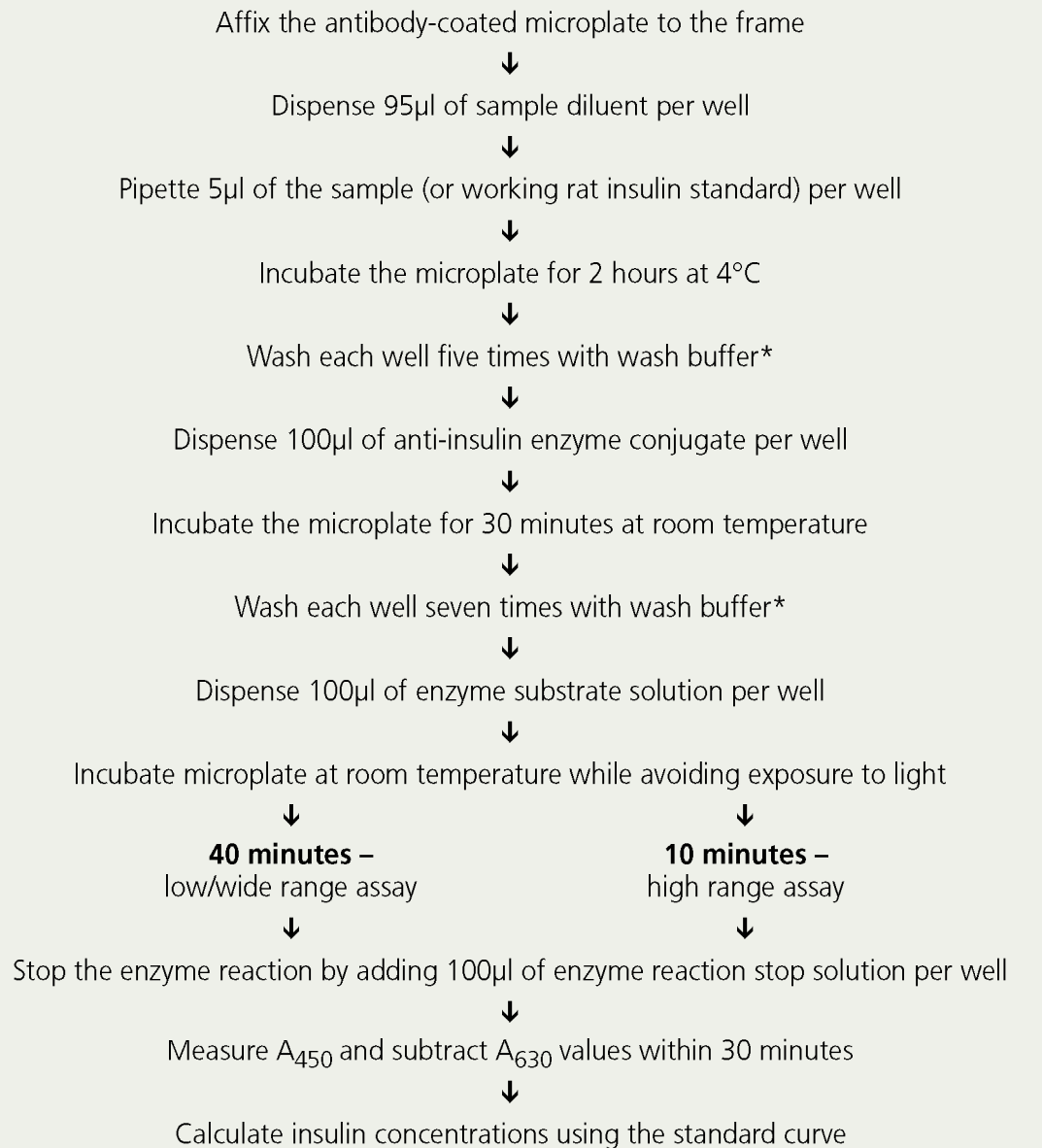
Typical Standard Curves:



| | |
|--------------------|---|
| Highlights: | <ul style="list-style-type: none">• 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)



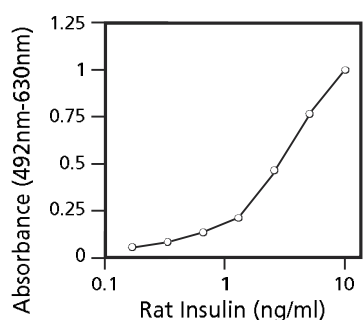
* Each well should be washed with 300µl of wash buffer. Aspirate the wells completely so all excess solution is removed.

| | |
|---------------------|--|
| 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: | |

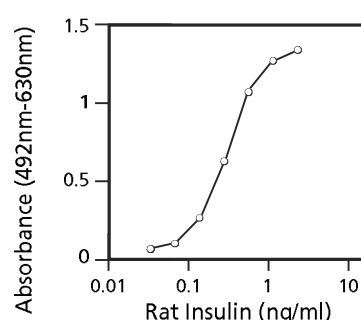
| Substance | Reactivity |
|-------------------------------------|-------------------|
| Rat insulin | 100% |
| Mouse insulin | 105% * |
| Porcine insulin | 160% * |
| Hamster insulin | Detected* |
| Human insulin (recombinant) | Detected* |
| Human Proinsulin | Detected* |
| Rat C-peptide | Not detected |
| 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.

Catalog#
90030

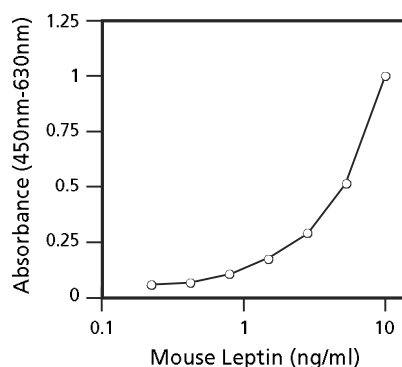
Mouse Leptin ELISA Kit

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

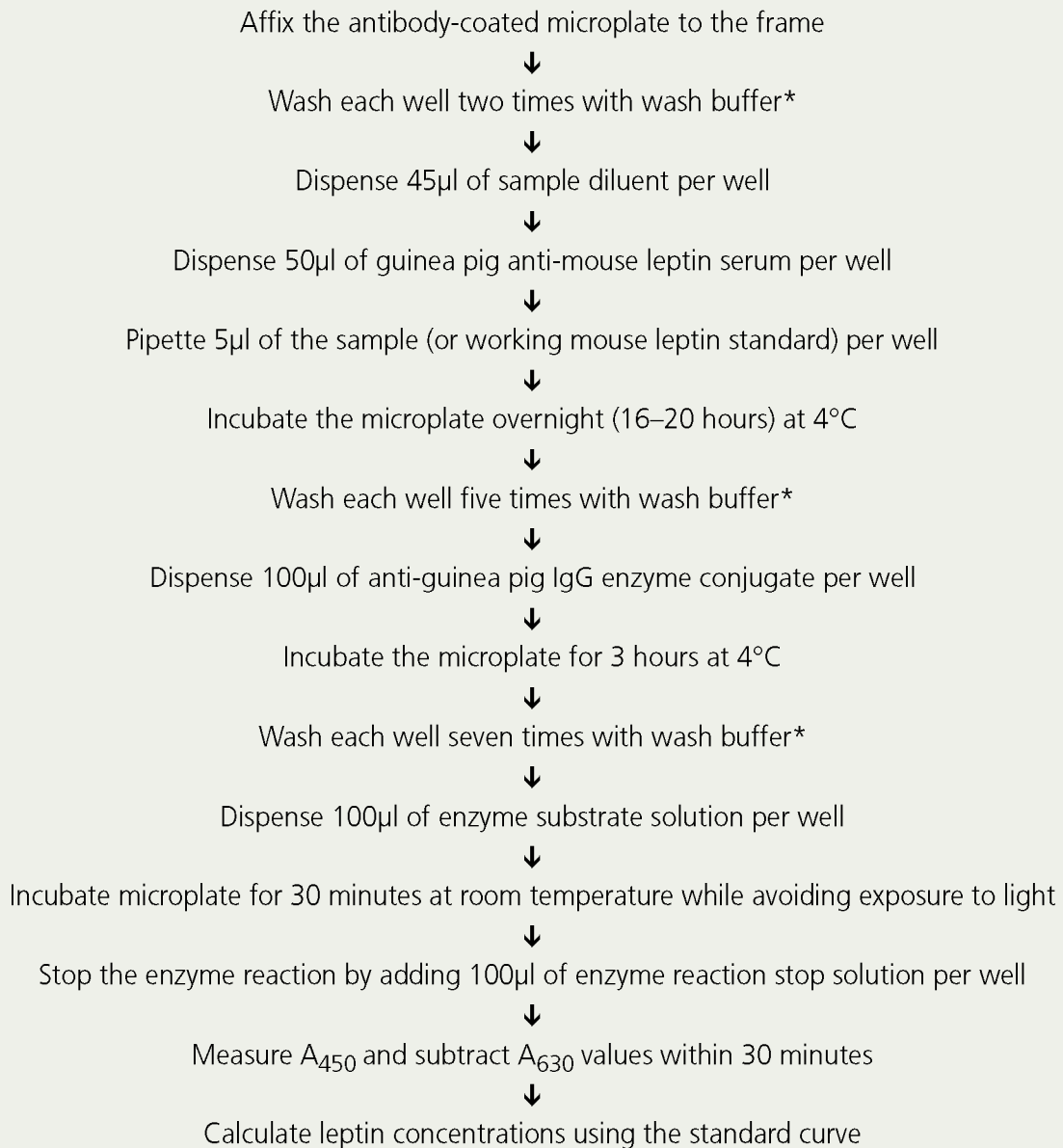
Typical Standard Curve:



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

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.

Catalog#
90040

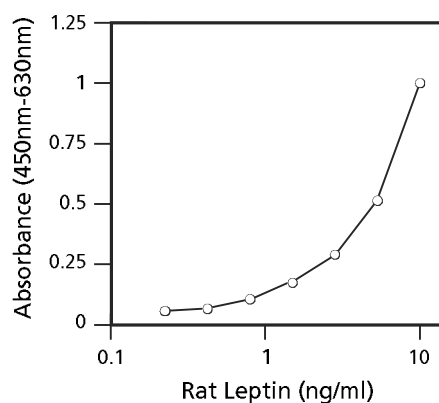
Rat Leptin ELISA Kit

| | |
|---------------------|--|
| Sample Size: | 5µl |
| Samples: | Serum, plasma or fluid |
| Tests: | 96 wells (8 wells x 12 modules) |
| Reagents: | In liquid form (except standard) |
| Assay Range: | 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.

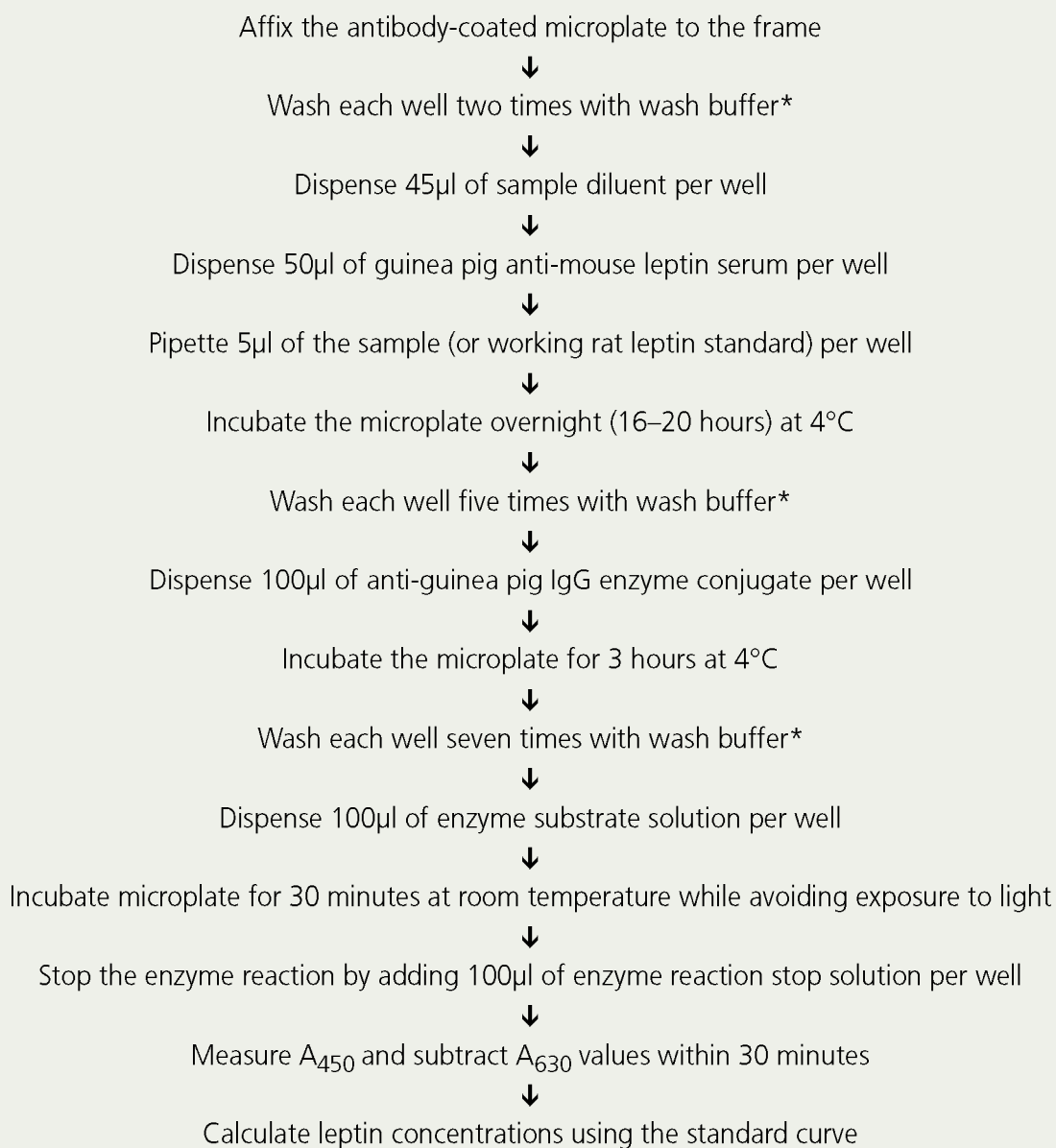
Typical Standard Curve:



- 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%.

www.atzlabs.com

For research use only. Not for use in diagnostic procedures.

Crystal Chem ELISA Kits

| | Catalog# |
|---|----------|
| Ultra Sensitive Mouse Insulin ELISA Kit NEW! | 90080 |
| Ultra Sensitive Rat Insulin ELISA Kit | 90060 |
| Mouse Insulin Standard 2.56ng Use with Ultra Sensitive Rat Insulin ELISA Kit, Cat# 90060 | 90070 |
| Rat Insulin ELISA Kit | INSKR020 |
| Mouse Insulin Standard 2ng Use with Rat Insulin ELISA Kit, Cat# INSKR020 | INSSM021 |
| Mouse Leptin ELISA Kit | 90030 |
| Rat Leptin ELISA Kit NEW! | 90040 |
| Dog Insulin Standard 2ng | 90150 |



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