

# Mouse IL-1β Antibody Bead Kit INFORMATION SHEET

Catalog #:	LMC0011	<b>Description:</b>	Mouse IL-1β	Lot:*	622653	

\*Note: A letter at the end of the lot number signifies an additional packaging of this same lot.

## **Intended Use**

This reagent set comprises components for the measurement of mouse IL-1 $\beta$  in serum, buffered solution or tissue culture supernatant. The assay may be run alone or in combination with other Antibody Bead Kits from Invitrogen. Buffer reagents needed to complete the reaction are sold separately under Catalog# LMB0001 or #LMB0002. When developing multiplexed assays with mouse cytokine antibody bead kits only, use Catalog# LMB0001. When developing assays with both mouse cytokine antibody bead kits and mouse growth factor antibody bead kits, Catalog# LMB0002 should be used. These reagents are intended for use in the Luminex®  $100^{TM}$  or  $200^{TM}$  System only. This kit is configured for research use only and is not to be used in diagnostic procedures.

# **Reagents Provided**

1. Antibody Bead Concentrate (10x):

Catalog #: LM025 Description: Rat x Ms IL-1β Lot: 622654 Size: 0.25 mL-100 tests

**Bead Region:** 06

Form: 0.25 mL 10x bead concentrate solution in storage buffer. Contains 7.5 mM sodium azide as preservative. Storage: Light-sensitive material. Store at 2 to 8°C in the dark, until the expiration date indicated on the kit.

2. Biotinylated Antibody Concentrate (10x):

**Catalog #:** BN025 **Description:** Goat x Ms IL-1β biotin **Lot:** 622657 **Size:** 1 mL-100 tests

Form: 1 mL of a 10x stock of Biotinylated Antibody Concentrate in Biotin Diluent. Contains 15 mM sodium azide as

preservative. Concentration of antibody is matched to this lot of beads. Do not mix lots of Coated Beads and

Detection Antibody.

**Storage:** Store at 2 to 8°C until the expiration date indicated on the kit.

3. Ms Twenty-Plex Standard (FGF basic, GM-CSF, IFN-γ, IL-1α, IL-1β, IL-2, IL-4, IL-5, IL-6, IL-10, IL-12, IL-13, IL-17, IR-10, IG MIR 1 - TNF - - - 1 N F GF) (2 - - 1 - 1)

<u>IP-10, KC, MCP-1, MIG, MIP-1α, TNF-α, and VEGF) (2 vials):</u>

Catalog #: SM039 Description: Rec. Ms Twenty-Plex Std. Lot: 563751 Size: Single use

Form: Lyophilized. The proteins in this standard have been calibrated against the masses of highly purified

recombinant proteins, with the respective Invitrogen ELISA kits, and NIBSC calibration standards (if

available)

**Storage:** Store at 2 to 8°C. Use within 1 hour after reconstitution. Discard immediately after use.

#### Concentration of Reconstituted Standards\*\*:

FGF basic (27,000 pg/mL)	GM-CSF (11,200 pg/mL)	IFN- $\gamma$ (7,100 pg/mL)	IL-1 $\alpha$ (12,750 pg/mL)
IL-1β (16,200 pg/mL)	IL-2 (11,100 pg/mL)	IL-4 (25,600 pg/mL)	IL-5 (12,000 pg/mL)
IL-6 (17,300 pg/mL)	IL-10 (29,000 pg/mL)	IL-12 (4,800 pg/mL)	IL-13 (12,600 pg/mL)
IL-17 (3,900 pg/mL)	IP-10 (13,180 pg/mL)	KC (97,600 pg/mL)	MCP-1 (8,240 pg/mL)
MIG (4,670 pg/mL)	MIP-1 $\alpha$ (21,500 pg/mL)	TNF- $\alpha$ (12,700 pg/mL)	VEGF (4,400 pg/mL)

<sup>\*\*</sup>Important note: The concentrations of reconstituted standards are lot-specific. Please verify all concentration values entered in data analysis software.

Note: During calibration, the protein values required adjustment. If comparing data from previous lot, please contact Tech Support for further information.

**Reconstitution:** Reconstitute with 1 mL *Assay Diluent* when measuring IL-1 $\beta$  in serum samples. For other sample types, such as tissue culture supernatants, reconstitute the standard in 1 mL of a solution consisting of 50% *Assay Diluent* + 50% sample matrix. Allow standard to rehydrate for approximately 10 minutes before further dilution.

Recommended Starting Concentration for Standard Curve: Upon reconstitution, the starting concentration of standard is the value cited above. Make serial 1:3 dilutions in Assay Diluent (serum samples) or other appropriate matrix. Use  $100 \mu L$  per assay. If establishing a Multiplex Assay, this same standard can be used to measure the other related cytokines cited above in a Multiplex Assay format. See the Product Insert included in the Buffer Reagent Kit for further information.

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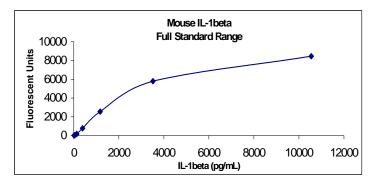
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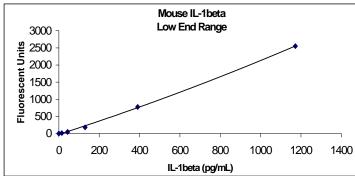
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# **Performance Characteristics**

Note: All data represented below was collected using the Invitrogen buffer kit Catalog #LMB0001.

Analytical Sensitivity: The minimum detectable dose of Ms IL- $1\beta$  is <10 pg/mL. This was determined by adding two standard deviations to the mean FI obtained when the zero standard was assayed 30 times.





### **Typical Standard Curve**

**Specificity:** Buffered solutions of a panel of substances at 10 or 20 ng/mL were assayed with the Invitrogen Mouse IL-1 $\beta$  Antibody Bead Kit. The following substances were tested and all were found to have no cross-reactivity: mouse IL-2, IL-3, IL-4, IL-5, IL-6, IL-10, IL-12, GM-CSF, IFN- $\gamma$ , MIP-2, TNF- $\alpha$ ; human IL-1 $\beta$ ; rat IL-1 $\beta$ ; swine IL-1 $\beta$ .

### **Precision:**

	Intra-assay	Inter-assay
	(n=16)	(n=32)
Mean (pg/mL)	915	926
SD	43.1	48.3
%CV	4.7	5.2

**Linearity**: Mouse serum and tissue culture medium containing 10% fetal calf serum were spiked with mouse IL-1β and serially diluted in *Assay Diluent* and tissue culture medium containing 10% fetal calf serum, respectively, over the range of the assay. Linear regression analysis of samples versus the expected concentration yielded a correlation coefficient of 0.99 for both serum and tissue culture.

### Recovery:

Mouse serum averaged 107% (range: 99% to 120%).

Tissue culture medium containing 10% fetal calf serum averaged 100% (range: 95% to 105%).

Correlation to ELISA: A correlation coefficient of 1.0 was calculated when values for tissue culture supernatant samples, obtained with the Mouse IL-1 $\beta$  Antibody Bead Kit, were compared to the Invitrogen ELISA for Mouse IL-1 $\beta$  (Catalog# KMC0011, KMC0012). Mouse IL-1 $\beta$  Antibody Bead Kit x 1.0 = Mouse IL-1 $\beta$  ELISA. Correlation of results obtained with the Mouse IL-1 $\beta$  Antibody Bead Kit to one's own system should be determined to arrive at an appropriate multiplication factor.

By purchasing this Kit, which contains fluorescently labeled microsphere beads authorized by Luminex® Corporation ("Luminex®"), you, the customer, acquire the right under Luminex's patent rights to use this Kit or any portion of this Kit, including without limitation the microsphere beads contained herein, only with Luminex's laser based fluorescent analytical test instrumentation marketed under the name Luminex®  $100^{\text{TM}}$  or  $200^{\text{TM}}$ . This product is covered by one or more of the following U.S. patents: 6,046,807.

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