



# Mouse IL-12 p70 Antibody Bead Kit

## INFORMATION SHEET

**Catalog #:** LMC9121    **Description:** Mouse IL-12 p70    **Lot:\*** 421710

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

### Intended Use

This reagent set comprises the analyte specific components for the measurement of mouse IL-12 p70 heterodimer in serum, plasma, 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. These reagents are intended for use in the **Luminex® 100™ or 200™ 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 #:** LM042    **Description:** Rat x Ms IL-12    **Lot:** 437106    **Size:** 0.25 mL-100 tests

**Bead Region:** 20

**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.

**Note:** Beads for Mouse IL-12 p70 and Mouse IL-12 p40/p70 (cat.# LMC0121) can not be mixed. Each protein must be measured separately.

#### 2. Biotinylated Antibody Concentrate (10x):

**Catalog #:** BN042    **Description:** Rat x Ms IL-12 biotin    **Lot:** 437107    **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 Th1/Th2 Standard (IL-2, IL-4, IL-5, IL-10, IL-12, IFN-γ) (2 vials):

**Catalog #:** SM002    **Description:** Rec. Ms Th1/Th2 Std.    **Lot:** 310669    **Size:** Single use

**Form:** Lyophilized. The proteins in this standard have been calibrated against the mass of highly purified recombinants. See the Product Insert included in the Buffer Reagent Kit for further information.

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

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

IL-2 (2,624 pg/mL)	IL-4 (13,900 pg/mL)
IFN-γ (4,750 pg/mL)	IL-5 (6,620 pg/mL)
IL-10 (13,940 pg/mL)	IL-12 (13,700 pg/mL)

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

**Reconstitution:** Reconstitute with 1 mL Assay Diluent when measuring IL-12 in serum or plasma 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/plasma samples) or other appropriate matrix. Use 100 µL 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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PILMC9121 (Rev 09/08)

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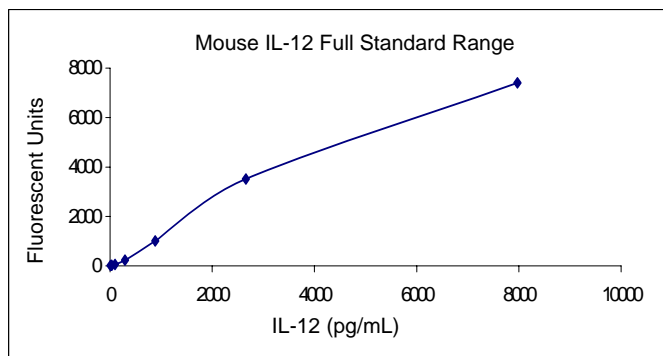
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### Performance Characteristics

**Analytical Sensitivity:** The minimum detectable dose of Ms IL-12 is <15 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 ng/mL were assayed with the Invitrogen Mouse IL-12 p70 Antibody Bead Kit. The following substances were tested and all were found to have no cross-reactivity: mouse IL-1 $\beta$ , IL-2, IL-3, IL-4, IL-5, IL-6, IL-10, IL-12 p40 homodimer, GM-CSF, IFN- $\gamma$ , MCP-1, MIP-2, TNF- $\alpha$ ; human IL-12.

#### Precision:

	Intra-assay (n=16)	Inter-assay (n=32)
Mean (pg/mL)	918	918
SD	74	81
%CV	8.1	8.8

**Linearity:** Mouse serum was spiked with mouse IL-12 and serially diluted in Assay Diluent over the range of the assay. Linear regression analysis of samples versus the expected concentration yielded a correlation coefficient of 0.99. Tissue culture medium containing 10% fetal calf serum was spiked with mouse IL-12 and serially diluted in a solution consisting of 50% *Assay Diluent* and 50% tissue culture medium. Linear regression analysis of samples versus the expected concentration yielded a correlation coefficient of 0.99.

#### Recovery:

Mouse serum averaged 83% (range: 78% to 92%).

Mouse plasma (heparin) averaged 91% (range: 88% to 93%); Citrated and EDTA plasma are not recommended.

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

**Correlation to ELISA:** A correlation coefficient of 0.96 was calculated when values for tissue culture supernatant samples, obtained with the Mouse IL-12 p70 Antibody Bead Kit, were compared to the Invitrogen ELISA for Mouse IL-12 p70 (cat.# KMC9121, KMC9122). Mouse IL-12 p70 Antibody Bead Kit  $\times$  0.67 = Mouse IL-12 p70 ELISA. Correlation of results obtained with the Mouse IL-12 p70 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™ or 200™ System. This product is covered by one or more of the following U.S. patents: 6,046,807.

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