



Human IL-1 β Singleplex Bead Kit

Technical Data Sheet

Catalog #: LHC0011 Lot #: * 983081

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

Intended Use

This kit is comprised of components for the measurement of human IL-1 β in serum, plasma or tissue culture supernatant. The assay may be run alone or in combination with other Singleplex Bead Kits from Invitrogen. Buffer reagents needed to complete the reaction are sold separately under Catalog #LHB0001. These reagents are intended for use in the **Luminex® 100™/200™** and the **FlexMAP 3D® System**. **This kit is configured for research use only and is not to be used in diagnostic procedures.**

Reagents Provided

1. Part #: LM019 Description: Antibody Bead Concentrate (10X) Lot: 985650 Size: 0.25 mL-100 tests

Bead Region: 6
Form: 0.25 mL 10X bead concentrate solution in storage buffer. Contains 0.05% sodium azide as a preservative.
Storage: **Light-sensitive material.** Store at 2 to 8°C in the dark, until the expiration date indicated on the kit.

2. Part #: BN019 Description: Biotinylated Ab Conc. (10X) Lot: 985649 Size: 1 mL-100 tests

Form: 1 mL of a 10X stock of Biotinylated Antibody Concentrate in Biotin Diluent. Contains 0.1% 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. Part #: SM311 Description: Hu 16-Plex Standard Lot: 925003 Size: 2 Vials

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). Refer to the User Manual included in the Buffer Reagent Kit for further information. Contains 0.1% sodium azide as a preservative.
Storage: Store at 2 to 8°C. Use within 1 hour after reconstitution. Discard immediately after use.

Concentration of Reconstituted Standard**:

IL-1 β (8,200 pg/mL)	IL-10 (19,700 pg/mL)	IFN- α (13,800 pg/mL)	IL-6 (5,150 pg/mL)
IL-12 (13,400 pg/mL)	IL-13 (21,700 pg/mL)	IL-15 (26,600 pg/mL)	IL-17 (25,600 pg/mL)
GM-CSF (19,200 pg/mL)	IL-5 (5,250 pg/mL)	IFN- γ (16,200 pg/mL)	TNF- α (11,100 pg/mL)
IL-2 (18,400 pg/mL)	IL-7 (6,700 pg/mL)	IL-4 (49,000 pg/mL)	IL-8 (11,000 pg/mL)

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

Reconstitution: Reconstitute with 1 mL Assay Diluent when measuring IL-1 β 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% of 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 μ 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. Refer to the User Manual included in the Buffer Reagent Kit for further information.

For Research Use Only. CAUTION: Not for human or animal therapeutic or diagnostic use.

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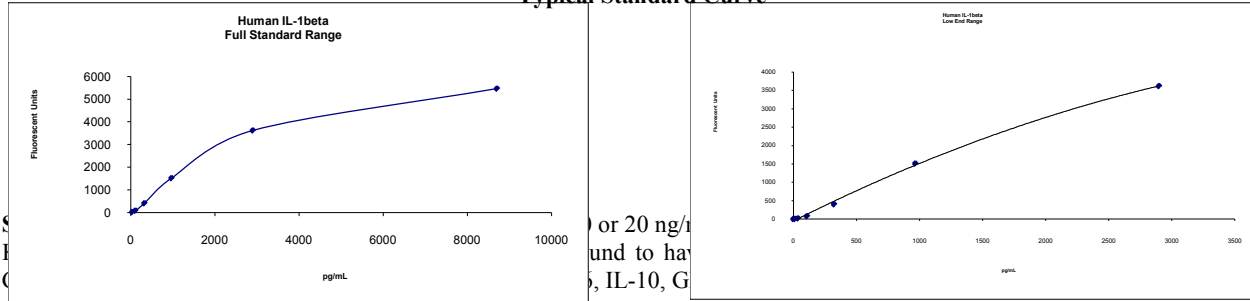
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Performance Characteristics

Analytical Sensitivity: The minimum detectable dose of Hu IL-1 β 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



Precision:

	Intra-assay (n=16)	Inter-assay (n=32)
Mean (pg/mL)	1410	1440
SD	117	127
%CV	8.3	8.8

Linearity: Human serum and tissue culture medium containing 10% fetal calf serum were spiked with human IL-1 β 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 correlation coefficients of 0.91 and 0.99 for serum and tissue culture, respectively.

Recovery:

Sample type	Results
Serum (Human)	✓
EDTA plasma (Human)	✓
Citrate plasma (Human)	✓
Heparin plasma (Human)	—
Tissue culture medium with 10% fetal calf serum*	✓

Notes: 70-130% recovery (✓), 50-69% recovery (—), 131-150% recovery (+) and <50% or >150% recovery (NR - Not recommended) *Analysis performed during product development and with first lots produced.

Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		In vitro diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

Correlation to ELISA:

A correlation coefficient of 0.97 was calculated when values for stimulated lymphocytes in RPMI + 10% FCS, obtained with the Hu IL-1 β Singleplex Bead Kit were compared to the Invitrogen ELISA for Hu IL-1 β (cat.# KAC1211, KAC1212). Hu IL-1 β Singleplex Bead Kit (pg/mL) x 1.57 = Hu IL-1 β ELISA (pg/mL).

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