



Human IL-1 α Singleplex Bead Kit

Technical Data Sheet

Catalog #: LHC0811 Lot #:* 955536

*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 α 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

Hu IL-1 α

1. Part #: LM104 Description: Antibody Bead Concentrate (10X) Lot: 955539 Size: 0.25 mL-100 tests

Bead Region: 4

Form: 0.25 mL 10X bead concentrate solution in storage buffer. Contains 0.05% 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.

Hu IL-1 α

2. Part #: BN104 Description: Biotinylated Ab Conc. (10X) Lot: 955538 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 #: SM250 Description: Hu 6-Plex Standard Lot: 825779 Size: 2 Vials

Form: Lyophilized. The proteins in this standard have been calibrated against the mass of highly purified recombinant proteins, with the respective Invitrogen ELISA kits, and NIBSC calibration standard (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**:

TNF-RII (15,000 pg/mL) TNF-RI (19,000 pg/mL) DR5 (43,000 pg/mL) IL-3 (33,000 pg/mL)
IL-1 α (17,000 pg/mL) IL-6R (39,000 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 α 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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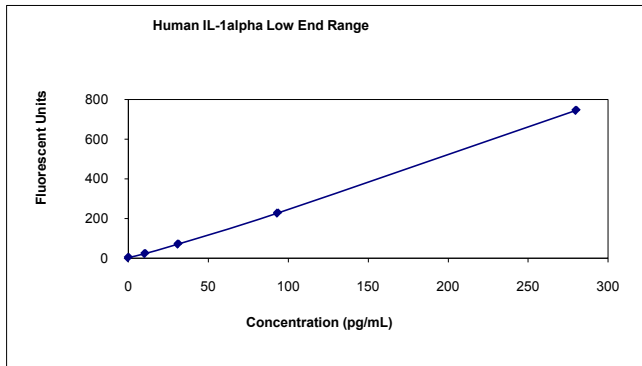
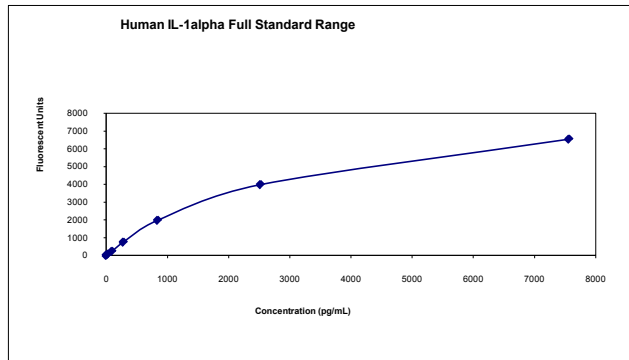
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Performance Characteristics

Analytical Sensitivity: The minimum detectable dose of Hu IL-1 α 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 50 ng/mL were assayed with the Invitrogen Human IL-1 α Singleplex Bead Kit. The following substances were tested and all were found to have no cross-reactivity: human IL-1 β , IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-10, IL-12, IL-13, IL-15, IL-17, G-CSF, GM-CSF, IFN- α , IFN- γ , TNF- α , VEGF, FGF-basic, HGF, EGF, IP-10, MIG, MCP-1, MIP-1 α , MIP-1 β , Eotaxin, and RANTES; mouse IL-1 α .

Precision:

	Intra-assay (n=16)	Inter-assay (n=32)
Mean (pg/mL)	359.3	377.6
SD	14	25.2
%CV	3.6	6.1

Linearity: Human serum and tissue culture medium containing 10% fetal calf serum were spiked with human IL-1 α and serially diluted in Assay Diluent and a solution consisting of 50% Assay Diluent and 50% 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 0.97 for serum and 0.99 for tissue culture medium.

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
[REF]	Catalogue Number	[LOT]	Batch code
[RUO]	Research Use Only	[IVD]	In vitro diagnostic medical device
🕒	Use by	🔒	Temperature limitation
🏭	Manufacturer	[CE/REF]	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.		

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