



Human G-CSF Singleplex Bead Kit

Technical Data Sheet

Catalog #: LHC2031 Lot #:* 819033

*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 G-CSF in 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™ or 200™ System** only. **This kit is configured for research use only and is not to be used in diagnostic procedures. This kit is only for tissue culture supernatant.**

Reagents Provided

1. **Part #:** LM047 **Description:** Hu G-CSF Antibody Bead Concentrate (10X) **Lot:** 819035 **Size:** 0.25 mL-100 tests

Bead Region: 7

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 #:** BN047 **Description:** Hu G-CSF Biotinylated Ab Conc. (10X) **Lot:** 819034 **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 #:** SM009 **Description:** Hu Growth Factor Standard **Lot:** 835197 **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). Contains 0.1% sodium azide as a preservative.

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

Expiration Date: Expires one year from date of receipt when stored as instructed.

Concentration of Reconstituted Standards:

EGF (11,140 pg/mL) FGF-b (5,029 pg/mL) G-CSF (16,600 pg/mL)
HGF (4,543 pg/mL) VEGF (5,555 pg/mL)

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

Reconstitution: Reconstitute the standard in 1.0 mL of a solution consisting of 50% Assay Diluent + 50% tissue culture medium. 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 50% Assay Diluent + 50% tissue culture medium. Use 100 µL per assay. If establishing a Multiplex Assay, this same standard can be used to measure the other related growth factors 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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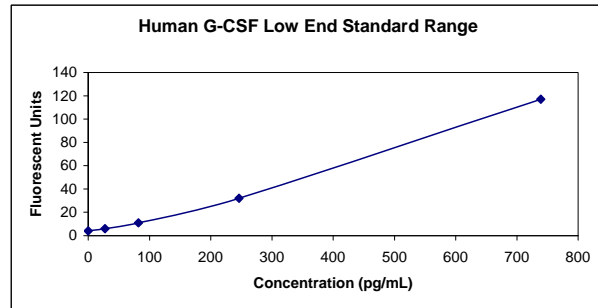
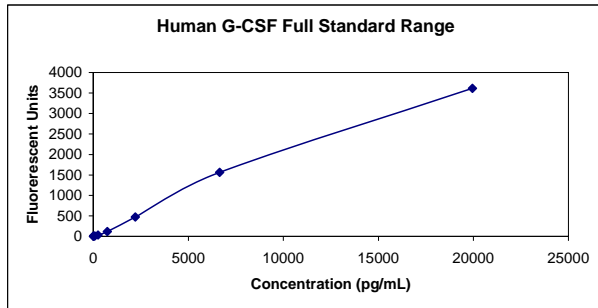
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Performance Characteristics

Analytical Sensitivity: The minimum detectable dose of Hu G-CSF 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 or 50 ng/mL were assayed with the Invitrogen Human G-CSF Singleplex Bead Kit. The following substances were tested and all were found to have no cross-reactivity: human IL-1 β , IL-2R, IL-4, IL-6, IL-6R, IL-8, IL-10, IL-12, IL-13, IL-15, IL-16, EGF, Fas/Apo-1/CD95, FGFb, GM-CSF, HGF, IFN- γ , MCP-1, MIP-1 α , RANTES, SCF/c-kit, TNF- α , VCAM-1, VEGF.

Precision:

	Intra-assay (n=16)	Inter-assay (n=32)
Mean (pg/mL)	2137	2084
SD	75	98
%CV	3.5	4.7

Linearity: Tissue culture medium containing 10% fetal calf serum was spiked with human G-CSF 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 0.98.

Recovery:

Tissue culture medium containing 10% fetal calf serum averaged 98%. Human serum and plasma (citrate, EDTA or heparin) are not recommended.

Correlation to ELISA: A correlation coefficient of 0.97 was calculated when values for tissue culture samples obtained with the Human G-CSF Singleplex Bead Kit were compared to the Invitrogen ELISA for Human G-CSF (cat. # KHC2031, KHC2032). Human G-CSF Singleplex Bead Kit x 0.06 = Human G-CSF ELISA. Correlation of results obtained with the Human G-CSF Singleplex Bead Kit to one's own system should be determined to arrive at an appropriate multiplication factor.

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.		

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™. This product is covered by one or more of the following U.S. patents: 6,046,807.

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