

Datasheet for 009-001-W20-0002**rHuman SCF Protein****Overview**

Description:	Human Stem Cell Factor Recombinant Protein - 009-001-W20-0002
Item No.:	009-001-W20-0002
Size:	2 µg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Human

Product Details

Background:	Stem Cell Factor (SCF) is a cytokine made by fibroblasts and endothelial cells. SCF binds to the receptor known as c-Kit (CD117) and is thought to play a critical role in the maintenance or survival of hematopoietic stem cells. Human SCF shows no activity on murine cells, but murine and rat SCF are active on human cells. Recombinant human SCF is a non-glycosylated protein, containing 165 amino acids, with a molecular weight of 18.4 kDa
Synonyms:	c-Kit Ligand, KL, Steel Factor, Stem cell factor (SCF), Mast cell growth factor (MGF)
Species of Origin:	Human
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	KITLG
Purity/Specificity:	Stem Cell Factor purity was determined to be greater than 98% as determined by analysis by UV-Spectroscopy at 280nm and by reducing and non-reducing SDS-PAGE.
Relevant Links:	• UniProtKB - P21583

Application Details

Tested Applications:	SDS-PAGE
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Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Stem Cell Factor Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Stem Cell Factor in immunological assays. Buffer Formulation: 10 mM sodium phosphate, 50 mM sodium chloride, pH 7.5.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Endotoxin Level: Measured by kinetic LAL analysis and is typically ≤ 1 EU/ μ g protein. Biologic Activity: The activity is determined by the dose-dependent stimulation of Human TF-1 cells and is typically 15 ng/mL.

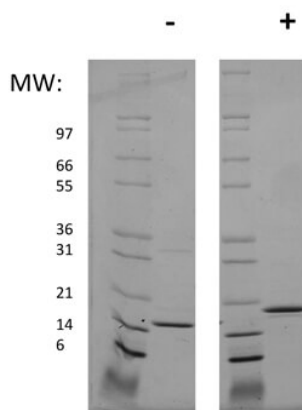
Formulation

Physical State:	Lyophilized
Buffer:	See application note.
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	2 μ l (2-20 μ l)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

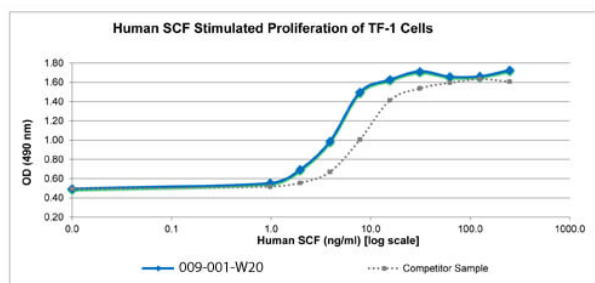
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE

SDS-PAGE of Human Stem Cell Factor Recombinant Protein. Lane 1: Molecular weight marker. Lane 2: 1 µg Human SCF in non-reducing conditions (-). Lane 3: Molecular weight marker. Lane 4: 1 µg Human SCF in reducing conditions (+). Human SCF has a predicted MW of 18.4 kDa.



SDS-PAGE

Bioactivity of Human Stem Cell Factor Recombinant Protein. Serial dilutions of Human SCF, starting at 250 ng/mL, were added to TF-1 cells. After 68 hours, cell proliferation was measured and the linear portion of the curve was used to calculate the ED50. The ED50 of Human SCF is 3.3-5 ng/mL. This value is comparable to the typical expected value of 1-5 ng/mL.

Disclaimer

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