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Datasheet for 012-001-W20-0002

rRat SCF Protein

Overview

Description:	Rat Stem Cell Factor Recombinant Protein - 012-001-W20-0002
Item No.:	012-001-W20-0002
Size:	2 µg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Rat
Expressed in:	E. coli

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 rat SCF is a non-glycosylated protein, containing 165 amino acids, with a molecular weight of 18.4 kDa.
Synonyms:	c-Kit Ligand, Hematopoietic growth factor KL, KL, Steel Factor, Stem cell factor (SCF), Mast cell growth factor(MGF)
Species of Origin:	Rat
Expressed in:	E. coli
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 - P21581

Application Details

Tested Applications:	SDS-PAGE
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.
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/µg protein. Biologic Activity: The activity is determined by its ability to induce proliferation of TF-1 cells and is typically less than 10 ng/mL.

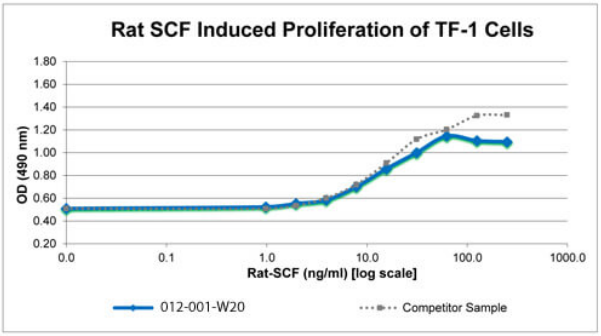
Formulation

Physical State:	Lyophilized
Buffer:	0.1% Trifluoroacetic acid
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	2µl (2-20µl)
Reconstitution Buffer:	0.01M acetic acid

Shipping & Handling

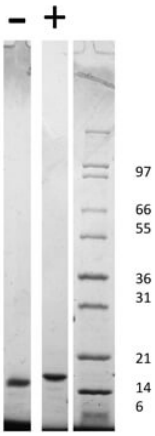
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results 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

Bioactivity of Rat Stem Cell Factor Recombinant Protein. Serial dilutions of Rat SCF, starting at 250 ng/mL, were added to TF-1 cells growing in GM-SCF free media. Cell proliferation was measure after 63 hours and the linear portion of the curve was us used to calculate the ED50. The ED50 of Rat SCF is between 10-15 ng/mL. This value is comparable to the typical expected range of 20-40 ng/mL.



SDS-PAGE

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

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.