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Datasheet for 010-001-W20-0010

rMouse SCF Protein

Overview

Description:	Mouse Stem Cell Factor Recombinant Protein - 010-001-W20-0010
Item No.:	010-001-W20-0010
Size:	10 µg
Applications:	Cellular Assay, IHC, WB
Origin:	Mouse
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 mouse SCF is a non-glycosylated protein, containing 164 amino acids, with a molecular weight of 18.3 kDa.
Synonyms:	c-Kit Ligand, Hematopoietic growth factor KL, KL, Steel Factor, Stem cell factor (SCF), Mast cell growth factor(MGF)
Species of Origin:	Mouse
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 - P20826

Application Details

Suggested Applications:	Cellular Assay, IHC, WB (Based on references)
Application Note:	Stem Cell Factor Recombinant Protein has been tested by biological activity and is suitable as a control for polyclonal or monoclonal anti-Stem Cell Factor in immunological assays. Lyophilized with 20 mM sodium phosphate, pH 6.5.
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/µg protein. Biologic Activity: The activity is determined by the dose-dependent proliferation of human TF-1 cells and is typically less than 10 ng/mL.

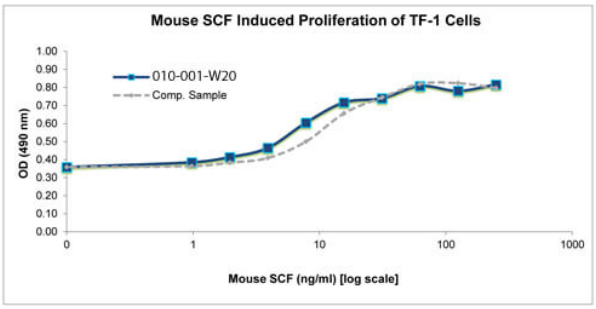
Formulation

Physical State:	Lyophilized
Concentration:	0.1 mg/ml
Buffer:	See application note.
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	10µl (10-100µl)
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
Bioactivity of Mouse Stem Cell Factor Recombinant Protein. Serial dilutions of Mouse SCF, starting at 250 ng/mL, were added to TF-1 cells growing in GM-SCF free media. Cell proliferation was measure after 65 hours and the linear portion of the curve was us used to calculate the ED50. The ED50 of Mouse SCF is between 5.7- 8.6 ng/mL. The typical range is between 2.5-10 ng/mL.

References

- Turnis M. et al. Requirement for Anti-Apoptotic MCL-1 during Early Erythropoiesis. *Blood* (2020)

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