Datasheet for ABIN6700197

KIT Ligand Protein (KITLG)

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Overview

Quantity:	100 µg
Target:	KIT Ligand (KITLG)
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant

Product Details

Purpose:	Mouse Stem Cell Factor Recombinant Protein
Purification:	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.
Purity:	98,00%
Endotoxin Level:	Measured by LAL is typically ≤ 1 EU/µg protein.
Biological Activity Comment:	The activity is determined by the dose-dependent proliferation of human TF-1 cells and is typically less than 10 ng/mL.

Target Details

Target:	KIT Ligand (KITLG)
Alternative Name:	Kitlg (KITLG Products)
Background:	Synonyms: c-Kit Ligand, Hematopoietic growth factor KL, KL, Steel Factor, Stem cell factor (SCF), Mast cell growth factor(MGF) Background: Stem Cell Factor (SCF) is a cytokine made by fibroblasts and endothelial cells. SCF

Target Details

	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.
UniProt:	P20826
Pathways:	RTK Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway

Application Details

Application Notes:	Other: User Optimized 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.
Comment:	Suggested_Applications: Cellular Assay, IHC, WB Other_Performance_Data:
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Reconstitution_Buffer: Restore with deionized water (or equivalent) Reconstitution_Volume: 100 µL
Concentration:	0.1 mg/mL
Buffer:	Lyophilized with 20 mM sodium phosphate, pH 6.5.
Preservative:	Without preservative
Storage:	-20 °C
Storage Comment:	Store vial at -20° 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.

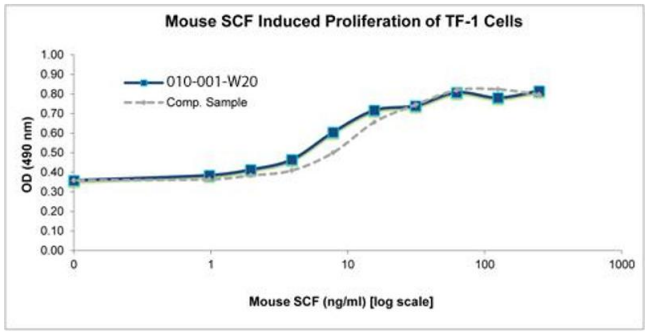
Handling

Expiry Date:	6 months

Publications

Product cited in:	Turnis, Kaminska, Smith, Kartchner, Vogel, Laxton, Ashmun, Ney, Opferman: "Requirement for antiapoptotic MCL-1 during early erythropoiesis." in: **Blood**, Vol. 137, Issue 14, pp. 1945-1958, (2021) (PubMed).

Images



SDS-PAGE

Image 1. SDS-PAGE of Mouse Stem Cell Factor Recombinant Protein 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.