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Datasheet for 010-001-V72-1000

rMouse LIF Protein

Overview

Description:	Mouse Leukemia Inhibitory Factor Recombinant Protein - 010-001-V72-1000
Item No.:	010-001-V72-1000
Size:	1 mg
Applications:	Cellular Assay
Origin:	Mouse
Expressed in:	E. coli

Product Details

Background:	Mouse Leukemia Inhibitory Factor (LIF) is member of the IL-6 family and is made by a variety of tissues. LIF signals through receptors gp190 (LIFR) and gp130 to activate STAT3 which ultimately promotes mouse embryonic stem cell self-renewal and pluripotency of long term cultures. This activity is similar to that attributed to FGF-basic (FGF-2) for human embryonic stem cells. Recombinant mouse LIF is a non-glycosylated protein, containing 181 amino acids, with a molecular weight of 20 kDa.
Synonyms:	Differentiation-stimulating factor (D factor), Leukocyte Inhibitory Factor
Species of Origin:	Mouse
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	Lif
Purity/Specificity:	Leukemia Inhibitory Factor purity was determined to be greater than 98% as determined by reducing and non-reducing SDS-pAGE.
Relevant Links:	• UniProtKB - P09056

Application Details

Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Leukemia Inhibitory Factor Recombinant Protein has been tested by biological activity and is suitable as a control for polyclonal or monoclonal anti-Leukemia Inhibitory 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 inhibit proliferation of M1 cells and is typically less than 0.03 ng/mL.

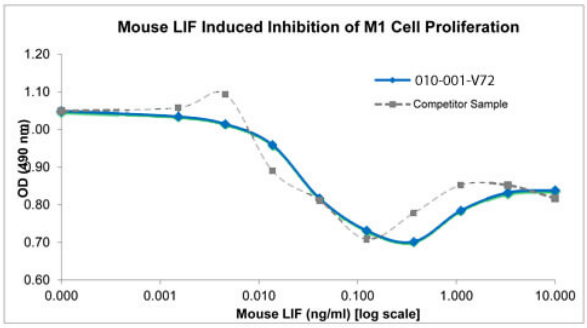
Formulation

Physical State:	Lyophilized
Buffer:	0.1% Trifluoroacetic acid
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	1.0 mL
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 Mouse Leukemia Inhibitory Factor Recombinant Protein. M1 cells were cultured with 0 to 10 ng/mL Mouse LIF. Cell viability was measured after 5 days and the linear portion of the curve was used to calculate the ED50. The ED50 of Mouse LIF is 0.023- 0.035 ng/mL.

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.