

Datasheet for 010-001-U68-0005**rMouse CD40 Ligand Protein****Overview**

Description:	Mouse CD40 Ligand Recombinant Protein - 010-001-U68-0005
Item No.:	010-001-U68-0005
Size:	5 µg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Mouse
Expressed in:	E. coli

Product Details

Background:	CD40 Ligand (CD40-L), or CD154, is a membrane glycoprotein and differentiation antigen expressed on the surface of T cells. The CD40-L stimulates B-cell proliferation and secretion of all immunoglobulin isotypes in the presence of cytokines. CD40-L has been shown to induce cytokine production and tumoricidal activity in peripheral blood monocytes. CD40-L also co-stimulates proliferation of activated T-cells and this is accompanied by the production of IFN- γ , TNF- α , and IL-2. Recombinant mouse CD40 Ligand is a non-glycosylated protein, containing 149 amino acids and having a molecular mass of 16.4 kDa.
Synonyms:	TNFSF5, TNF-related activation protein (TRAP), CD154, gp39, T-BAM
Species of Origin:	Mouse
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	Cd40lg
Purity/Specificity:	CD40 Ligand purity was determined to be greater than 98% as determined by analysis by HPLC, UV-Spectroscopy at 280nm, and by reducing and non-reducing SDS-pAGE.
Relevant Links:	• UniProtKB - P27548

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	CD40 Ligand Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-CD40 Ligand in immunological assays. Buffer Formulation: 10 mM sodium phosphate, 50 mM arginine, pH7.5.
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 tested by HEK-blue™ CD40L Activity. Acceptable Level <50ng/mL, >2.0x10 ⁴ units/mg. Additionally testing by ELISA: IL-8 production by human PBMCs.

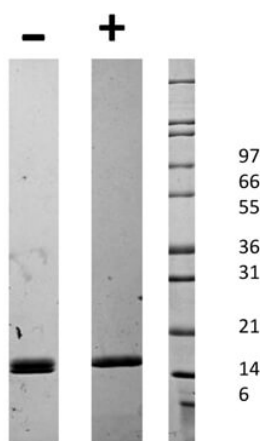
Formulation

Physical State:	Lyophilized
Buffer:	See application note.
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	5 μ l (5-50 μ l)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

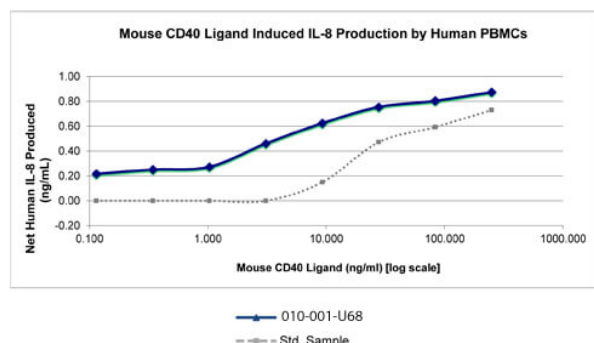
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results 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 Mouse CD40 Ligand Recombinant Protein. Lane 1: 1 µg Mouse CD40 Ligand in non-reducing conditions (-). Lane 2: 1 µg Mouse CD40 Ligand in reducing conditions (+). Lane 3: Molecular weight marker. Mouse CD40 Ligand has a predicted MW of 16.4 kDa.



SDS-PAGE

Bioactivity of Mouse CD40 Ligand Recombinant Protein. Serial dilutions of Mouse CD-40 Ligand, starting at 250 ng/mL, were added to human PBMCs. After 39 hours, cell supernatant was collected and human IL-8 was measured via ELISA and the linear portion of the curve was used to calculate the ED50. The ED50 of Mouse CD40 Ligand is 3.7-5.5 ng/mL. This value is comparable to the typical expected range of human CD40 Ligand is 5-10 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.