MEGACD40L® Protein (soluble) (human), (recombinant)

High activity, high purity CD40L protein for co-stimulatory activation of an immune response

MEGACD40L® is a high activity protein in which two trimeric CD40 ligand molecules are artificially linked via the collagen domain of Adiponectin/ACRP30/AdipoQ. This protein very effectively simulates the natural membrane-assisted aggregation of CD40L *in vivo*. It provides a simple and equally potent alternative to [CD40L+enhancer] combinations (Prod. No. ALX-850-064).

Citations: 88 View Online »

Ordering Information

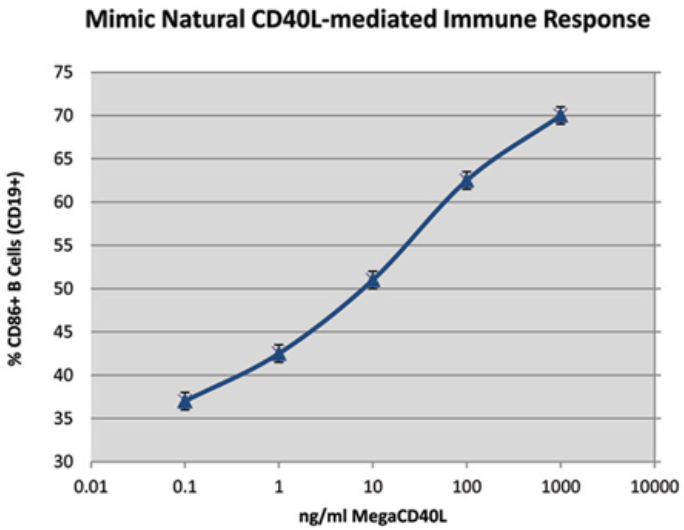
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ALX-522-110-C010	10µg

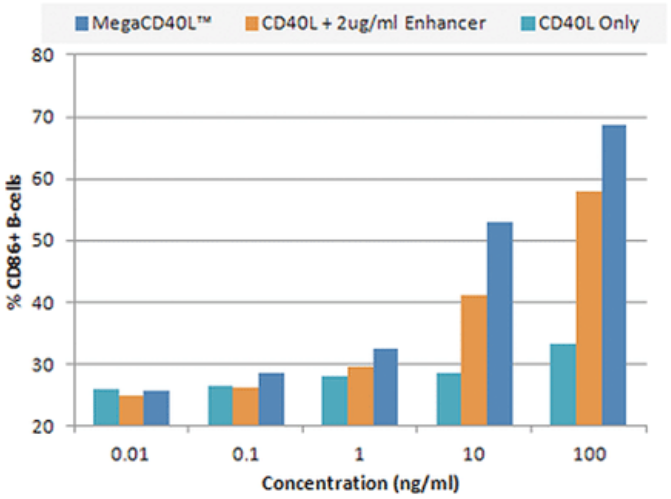
Manuals, SDS & CofA

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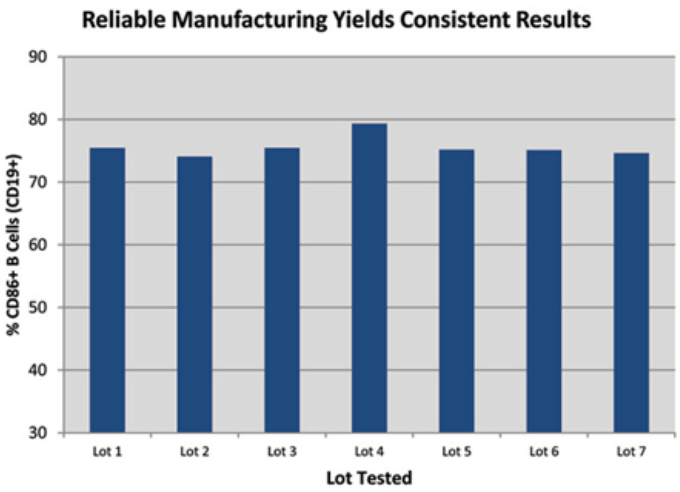
- Highly active MEGACD40L® oligomer mimics *in vivo* membrane-assisted CD40L aggregation and stimulation without the need for enhancers
- High purity with low endotoxin levels
- Experienced manufacturing results in consistent and dependable lot-to-lot performance
- Optimized formulation for improved stability and enhanced activity



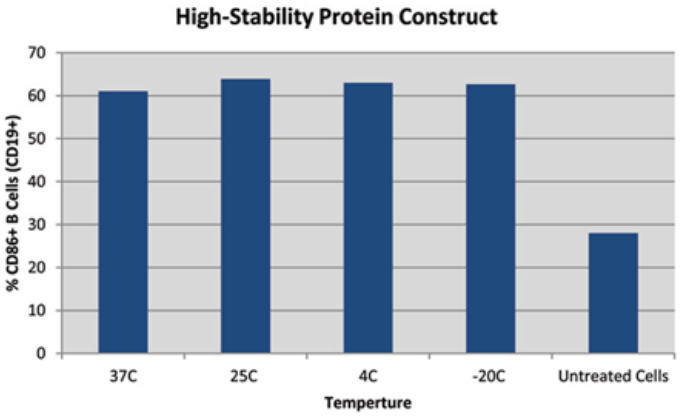
B cell lymphocyte activation by MEGACD40L® (Prod. No. ALX-522-110). Method: Peripheral Blood Mononuclear Cells (PBMCs) were incubated at 37°C, 5% CO2 for 48 hours in 48 well plates (1 x 106 cells/well). Each well contained 200µl serum free test media with serially diluted MEGACD40L®. After treatment, cells were washed and dual-stained with mouse anti-human CD19–PE and mouse anti-human CD86–APC and analyzed by flow cytometry. The data are presented as the percent of CD19 positive B cells that co-stain as CD86 positive, at each concentration of MEGACD40L®.



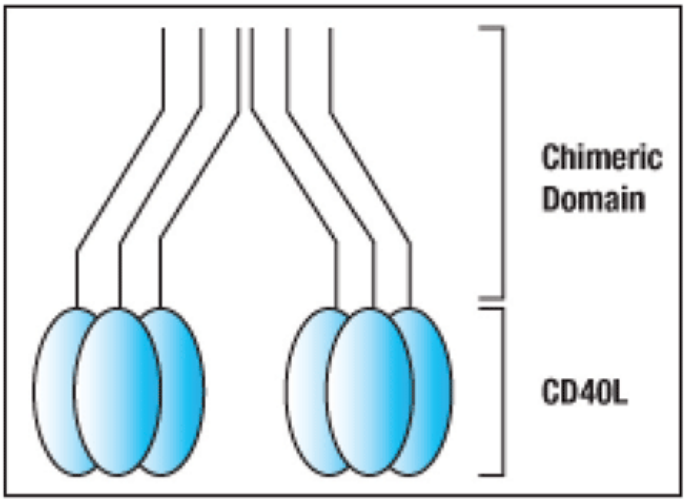
PBMCs (peripheral blood mononuclear cells) were incubated at 37°C, 5% CO_2 for 48 hours in 48 well plates (1 x 10^6 cells per well) containing 200µl serum free test media with serially diluted MEGACD40L® (Prod. No. ALX-522-110), CD40L (Prod. No. ALX-522-015), or CD40L + 2µg/ml Enhancer (Prod. No. ALX-804-034). After treatment the cells were washed 3X with PBS + 1% BSA. The cells were dual stained for 2 hours at 4°C with mouse anti-human CD19 (PE conjugate) and mouse anti-human CD86 (APC conjugate). The cells were washed 2X with PBS + 1% BSA, then re-suspended In PBS. Samples were analyzed on a BD Facs Calibur flow cytometer. The data is presented as the percent of CD86 positive cells per CD19 positive B cells at each concentration.



MEGACD40L® from 7 consecutive manufacturing lots was tested using a B-cell activation assay at 1000ng/mL.



MEGACD40L® was subjected to stability testing by storing the protein at the indicated temperature for 2 months. The protein was then tested for activity using a B cell activation assay. Results indicate MEGACD40L® retains activity under even harsh storage conditions.



Graphical representation of MEGACD40L®, Soluble (human) (recombinant) (Prod. No. ALX-522-110).

Handling & Storage

Use/Stability	Stable for at least 6 months after receipt when stored at -20°C.
Handling	Avoid freeze/thaw cycles. After reconstitution, prepare aliquots and store at -20°C.
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	CD40L:ACRP30headless, CD154:ACRP30headless, TNFSF 5:ACRP30headless, gp39:ACRP30headless
Application Notes	Can be used to mediate immune and inflammatory responses, as a protein tool for pre-clinical studies in immunotherapy, to monitor patients undergoing chemotherapy and to mimic autoimmune phenotypes *in vivo.*
Biological Activity	Binds to human CD40. Induces B cells activation (as demonstrated by dose-dependent upregulation of CD86).
Concentration	0.1mg/ml after reconstitution.
Endotoxin Content	≤0.01EU/μg purified protein (LAL test; Cape Cod Associates).
Formulation	Lyophilized. Contains PBS.
MW	~38kDa
Purity	≥90% (SDS-PAGE)
Purity Detail	Purified by multi-step chromatography.
Reconstitution	Reconstitute with 100μl sterile water. Further dilutions should be made with medium containing 5% fetal calf serum.

Source	Produced in CHO cells. The extracellular domain of human CD40L (CD154) (aa 116-261) is fused at the N-terminus to mouse ACRP30*headless* (aa 18-111) and a FLAG®-tag.
Technical Info / Product Notes	FLAG is a registered trademark of Sigma-Aldrich Co.
UniProt ID	P29965 (human CD40L), Q60994 (mouse Adiponectin)

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