

# Human CD40 Ligand (hCD40L)



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MW (kDa):	UniProt ID:	Entrez-Gene Id:
16	#P29965	959
<b>Background</b>	CD40 Ligand (CD40L), a member of the TNF superfamily of ligands, is expressed as either a membrane-bound or soluble homotrimer (1). Both membrane-bound and soluble forms of CD40L have biological activity (1,2). CD40L is expressed primarily on activated T cells; however, mast cells, basophils, and NK cells may also express CD40L (1). CD40L functions as an important T cell co-stimulatory molecule and enhances T-dependent B cell responses (1,2). CD40L binds CD40, which is a receptor expressed on B cells, dendritic cells, and macrophages (1). Binding of CD40L to CD40 leads to the recruitment of TRAF proteins (TRAFs 2,3,5, and 6) resulting in the activation of the JNK and NF- $\kappa$ B pathways (1,2).	
<b>Endotoxin</b>	Less than 0.01 ng endotoxin/1 $\mu$ g hCD40L.	
<b>Purity</b>	>98% as determined by SDS-PAGE of 6 $\mu$ g reduced (+) and non-reduced (-) recombinant hCD40L. All lots are greater than 98% pure.	
<b>Source / Purification</b>	Recombinant human CD40 Ligand (hCD40L) Met113-Leu261 (Accession #P29965) was produced in <i>E. coli</i> at Cell Signaling Technology.	
<b>Bioactivity</b>	The bioactivity of recombinant hCD40L was determined in a cell proliferation assay using human B cells. The ED <sub>50</sub> of each lot is between 0.5-2 $\mu$ g/ml.	
<b>Background References</b>	1. van Kooten, C. and Banchereau, J. (2000) <i>J Leukoc Biol</i> 67, 2-17. 2. Peters, A.L. et al. (2009) <i>Semin Immunol</i> 21, 293-300.	

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