

# Cardiolipin Grip™

G-CL01

Support: echelon@echelon-inc.com

**Description:**

Recombinant N-terminal GST-tagged cardiolipin binding protein expressed in *E. coli*.

**Properties:**

**Size** – 2.5 µg, 10 µg, & 50 µg

**Form** - Liquid

**Source** - purified from *E. coli*

**Concentration** – See product label

**Storage** – Store protein at -80 °C. For multiple uses, aliquot the obtained protein stock solution.

**M.W. of Protein** – 55.2 kDa including GST tag

**Purity** – >90% by SDS-PAGE

**Specificity** – recognizes Cardiolipin. Does not bind phosphatidylinositol, phosphatidylglycerol, phosphatidylserine, or cholesterol. Some cross reactivity observed with phosphatidic acid.

**Background:**

Cardiolipin (CL) is an anionic phospholipid present in mitochondrial and bacterial membranes and is critical for optimal energy metabolism. Defects in CL synthesis is associated with several diseases including Barth's Syndrome and circulating antibodies to CL are associated with antiphospholipid syndrome.

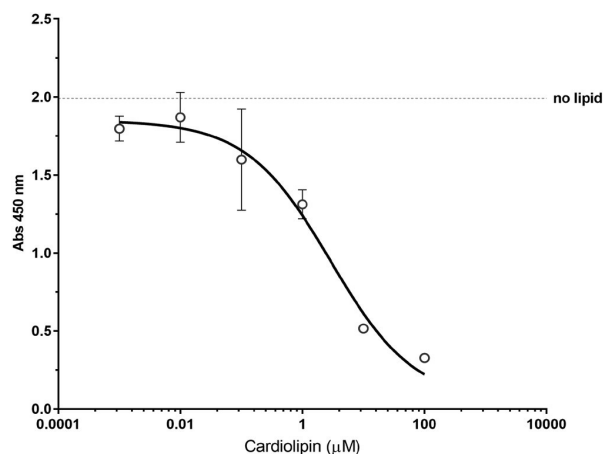
**Applications:**

ELISA - 2.0 ug/mL

Cardiolipin Grip (G-CL01) recognizes multiple species of cardiolipin in a competitive format on cardiolipin coated plates. PBS is recommended for dilution of G-CL01. G-CL01 has been validated with purified, synthetic lipids. Detection of G-CL01 should be performed with an anti-GST, enzyme-conjugated secondary antibody.

Other *in vitro* applications are possible using this protein but have not been internally validated by Echelon Biosciences. Optimal usage concentrations should be determined by the user.

**Data: ELISA**



Cardiolipin coated on 96-well plate detected with 1.25 ug/mL Cardiolipin Grip (G-CL01). Signal competed with Cardiolipin 16:0 (L-C160). IC50 = 2.8 uM

**References:**

1. T. A. Weber, S. Koob, H. Heide, I. Wittig, B. Head, A. van der Blik, U. Brandt, M. Mittelbronn and A. S. Reichert (2013) APOOL is a cardiolipin-binding constituent of the Mitofilin/MINOS protein complex determining cristae morphology in mammalian mitochondria. PLoS One 8(5):e63683
2. M. Desmurs, M. Foti, E. Raemy, F. Maxime Vaz, J. Martinou, A. Bairoch, L. Lane (2015) C11orf83, a Mitochondrial Cardiolipin-Binding Protein Involved in bc1 Complex Assembly and Super-complex Stabilization. MCB 35(7); 1139-1156

**Related Products:**

Products	Catalog Number
<b>Reagents</b>	
Cardiolipin Beads	P-BCLP
<b>Lipids</b>	
Aminocardiolipin	L-C16A
Synthetic 16:0 Cardiolipin	L-C160
Synthetic 16:0 Monolysocardiolipin	L-M160
Biotin Cardiolipin	L-C16B
<b>Assays</b>	
Membrane Lipid Strips	P-6002
Mega Lipid Strips	P-6005