

Synonym

RPL, Protein L

Source

Biotinylated Recombinant Protein L, His Tag, primary amine labeling, long spacer (RPL-P814R) is expressed from E.coli cells. It is the biotinylated form of Recombinant Protein L, His Tag (RPL-P3141).

Molecular Characterization

This protein carries a polyhistidine tag at the N-terminus. The protein migrates as 50-60 kDa on a SDS-PAGE gel under reducing (R) condition. This protein can bind to VL-Kappa.

Biotinylation

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with biotins using standard chemical labeling method. A specially optimized long-spacer biotin reagent (32.5 angstroms) is used in this product to minimize potential steric hindrance.

Biotin:Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

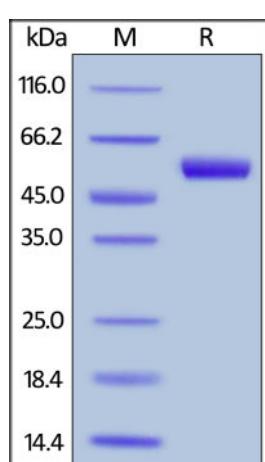
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

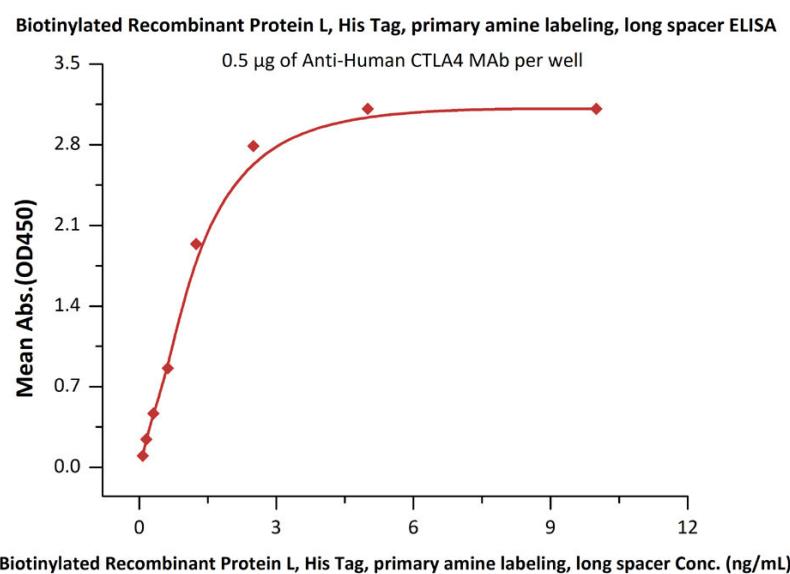
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Biotinylated Recombinant Protein L, His Tag, primary amine labeling, long spacer on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

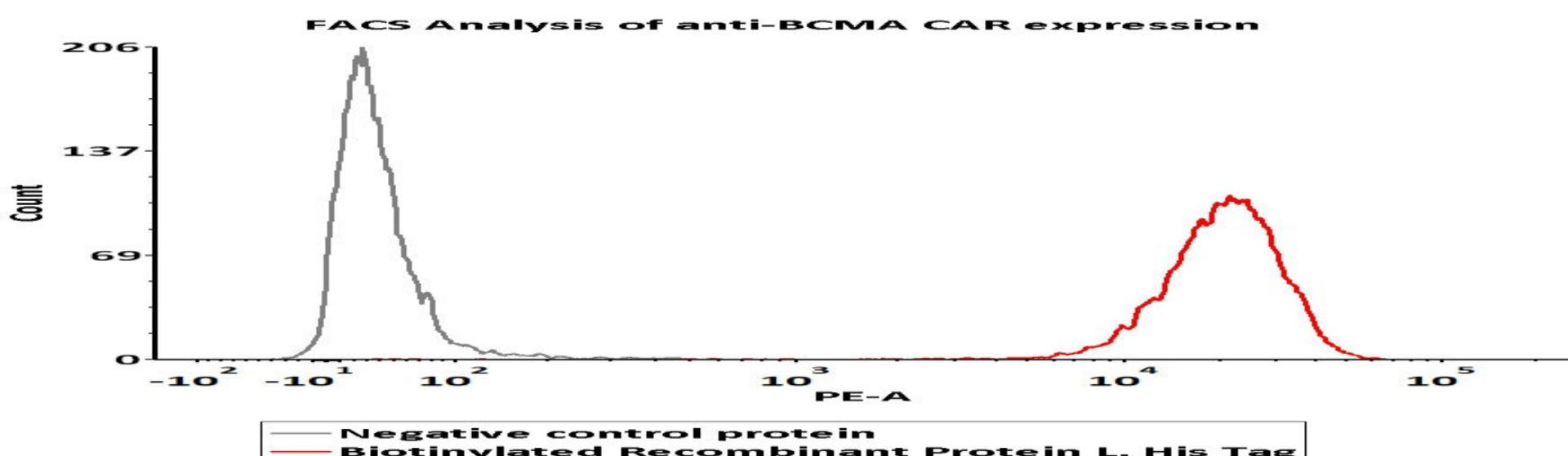
Bioactivity-ELISA



Immobilized Anti-Human CTLA4 MAb at 5 µg/mL (100 µL/well) can bind Biotinylated Recombinant Protein L, His Tag, primary amine labeling, long spacer (Cat. No. [RPL-P814R](#)) with a linear range of 0.1-1 ng/mL (QC tested).

Evaluation of CAR expression

FACS Analysis of Anti-BCMA CAR Expression



2e5 of BCMA-CAR-293 cells transfected with anti-BCMA-scFv were stained with 100 µl of 3 µg/mL of Biotinylated Recombinant Protein L, His Tag (Cat. No. [RPL-P814R](#)) and negative control protein respectively, washed and then followed by PE-SA and analyzed with FACS (Routinely tested).

Background

Protein L was isolated from the surface of bacterial species *Peptostreptococcus magnus* and was found to bind Ig(IgG, IgM, IgA, IgE and IgD) through L chain interaction, from which the name was suggested. Despite this wide-ranging binding capability with respect to Ig classes, Protein L is not a universal immunoglobulin-binding protein. Binding of Protein L to immunoglobulins is restricted to those containing kappa light chains (i.e., k chain of the VL domain). In humans and mice, kappa (k) light chains predominate. The remaining immunoglobulins have lambda (l) light chains. The recombinant protein contains four immunoglobulin (Ig) binding domains (Bdomains) of the native protein. Besides antibody, protein L is also suitable for binding of a wide range of antibody fragments such as Fabs, single-chain variable fragments (scFv), and domain antibodies (Dabs).

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.