

For Research Use Only

# anti-PD-L1 recombinant VHH, CoraLite® Plus 647



www.ptglab.com

Catalog Number: CL647-pdlo

## Basic Information

**Catalog Number:**  
CL647-pdlo

**Applications:**  
FC, IF

**Host:**  
Alpaca

**Conjugate:**  
CoraLite® Plus 647

**Type:**  
Nanobody

**Class:**  
Recombinant

**RRID:**  
AB\_3661836

**Molecular Weight:**  
13.887 kDa

## Description

CL647-pdlo targets PD-L1 in FC and IF applications and shows reactivity with Human samples.

## Affinity

Picomolar range, below the assay limit (biolayer interferometry)

## Excitation/Emission Maxima Wavelengths

654 nm / 674 nm

## Background

PD-L1, also known as CD274 or B7H1, stands for programmed cell death ligand 1. It is a type I transmembrane protein that is thought to repress immune responses by binding to its receptor (PD1), thus inhibiting T-cell activation, proliferation, and cytokine production. It contains V-like and C-like immunoglobulin domains. PD-L1 expression is regulated by various cytokines, such as TNF- $\alpha$  or LPS (ISSN: 1848-7718). Increased expression of this protein in certain types of cancers, e.g., renal cell carcinoma or colon cancer, correlates with poor prognosis. D-L1 is critical for the induction and maintenance of immune self-tolerance during infection or inflammation in normal tissues. The interaction of PD-L1 and its receptors is responsible for preventing auto-immune phenotypes and balancing the overall immune response in situations such as pregnancy or tissue allografts. The interaction between PD-L1 and PD-1 or B7.1 starts an inhibitory signaling cascade, which results in the decreased proliferation of antigen-specific T-cells and increased survival of regulatory T-cells (PMID: 15240681).

## Storage

**Storage:**  
Store at -20°C

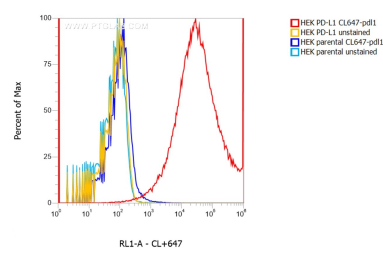
**Storage Buffer:**  
500 mM NaCl, 10 mM HEPES pH 7.0, 5 mM EDTA, 0.09% sodium azide

For technical support and original validation data for this product please contact

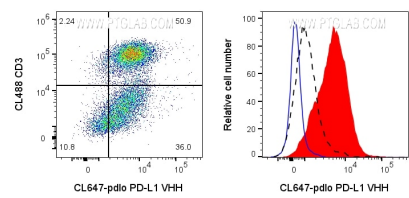
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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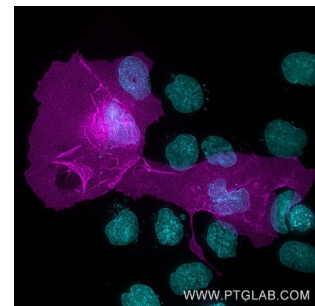
Selected Validation Data



1x10<sup>6</sup> HEK PD-L1 transient transfected cells (red) and HEK parental cells were surface stained with 0.5 µg CoraLite® Plus 647 conjugated-PD-L1 VHH (CL647-pdlo). Cells were not fixed.



Left: 1x10<sup>6</sup> PHA-treated (3d) human PBMCs were surface stained with 0.5ug CoraLite® Plus 647 conjugated PD-L1 VHH (CL647-pdlo) and CL488 CD3 (CL488-65151). Right: 1x10<sup>6</sup> PHA-treated (3d) human PBMCs were surface stained with 0.5ug CoraLite® Plus 647 conjugated PD-L1 VHH (CL647-pdlo) (red) or unstained (blue). 1x10<sup>6</sup> untreated human PBMCs were surface stained with 0.5ug CoraLite® Plus 647 conjugated PD-L1 VHH (CL647-pdlo) (black dashed). Cells were treated with FC Receptor Block prior to staining. Cells were not fixed. Lymphocytes were gated.



A431 cells transfected with human PD-L1 were immunostained with CoraLite® Plus 647 conjugated-PD-L1 VHH (1:1000, magenta). Nuclei were stained with DAPI (cyan). Epifluorescence images were acquired with a 20x objective and post-processed. Comment: Immunostaining with CL647-pdlo can be performed live or after formaldehyde fixation.