For Research Use Only

anti-PD-L1 recombinant VHH, FITC Plus

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Catalog Number: FITC-pdlo

Basic Information

Catalog Number:
FITC-pdlo

Applications:
FC, IF

Host:
Alpaca

Conjugate:
FITC Plus

Type:
Nanobody

Class:
Recombinant

RRID:
AB_3661837

Molecular Weight:
13.887 kDa

Description

FITC-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

495 nm / 524 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-α 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:

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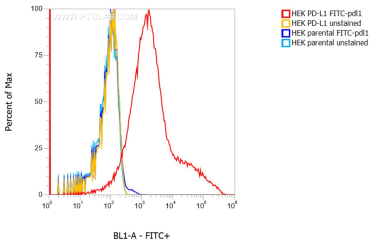
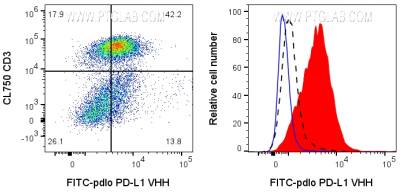
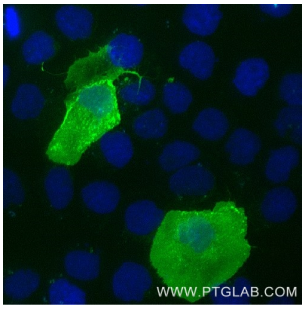
Selected Validation Data



1X10^6 HEK PD-L1 transient transfected cells (red) and HEK parental cells were surface stained with 0.5 µg FITC Plus conjugated-PD-L1 VHH (FITC-pdlo). Cells were not fixed.



Left: 1x10^6 PHA-treated (3d) human PBMCs were surface stained with 0.5ug FITC Plus conjugated PD-L1 VHH (FITC-pdlo) and CL750 CD3 (CL750-65151). Right: 1x10^6 PHA-treated (3d) human PBMCs were surface stained with 0.5ug FITC Plus conjugated PD-L1 VHH (FITC-pdlo) (red) or unstained (blue). 1X10^6 untreated human PBMCs were surface stained with 0.5ug FITC Plus conjugated PD-L1 VHH (FITC-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 FITC Plus conjugated-PD-L1 VHH (FITC-pdlo) (1:1000, green). Nuclei were stained with DAPI (blue). Epifluorescence images were acquired with a 20x objective and post-processed. Comment: Immunostaining with FITC-pdlo can be performed live or after formaldehyde fixation.