For Research Use Only

anti-PD-L1 recombinant VHH, for 2x Cys conjugation

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Catalog Number: pdloCys2

Basic Information

Catalog Number:
pdloCys2

Applications:
Conjugation

Host:
Alpaca

Conjugate:
Unconjugated

Type:
Nanobody

Class:
Recombinant

RRID:
AB_3661833

Molecular Weight:
13.887 kDa

Description

Alpaca anti-PD-L1 VHH, purified recombinant binding protein. Suitable for for cysteine conjugation with thiol-reactive reagents, e.g. maleimides. Note: unconjugated VHHs are not suited for usage without prior labeling, since they contain reactive Cysteines. Shipment and storage buffers contain TCEP to keep Cysteins reduced.

Affinity

Picomolar range, below the assay limit (biolayer interferometry)

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:
10 mM HEPES, 500 mM NaCl, pH 7.0, 1 mM TCEP, 0.09% sodium azide

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

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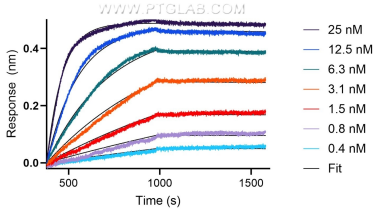
Selected Validation Data



The affinity of anti-human PD-L1 recombinant VHH towards human PD-L1 was determined using biolayer interferometry (BLI). Biotinylated, recombinant human PD-L1 was immobilized on Streptavidin biosensors and assayed with 0.4 to 25 nM of FITC Plus conjugated-PD-L1 VHH (FITC-pdlo). Fit indicates a 1:1 binding model fitted to the data.