For Research Use Only

anti-TIM3 recombinant VHH, for 2x Cys conjugation

www.ptglab.com

Catalog Number: tmtCys2

Basic Information

Catalog Number:
tmtCys2

Applications:
Conjugation

Host:
Alpaca

Conjugate:
Unconjugated

Type :
Nanobody

Class:
Recombinant

RRID:
AB_3101920

Molecular Weight:
14.824 kDa

Description

Alpaca anti-TIM3 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

in the picomolar range, below the assay limit (biolayer interferometry)

Background

TIM3, also known as HAVCR2, is a member of the recently discovered T cell Ig and mucin domain-containing molecule superfamily. TIM3 is a negative regulatory molecule that is important for T cell tolerance and has a crucial role in autoimmunity and T cell exhaustion during chronic viral infection (PMID: 23180819). TIM3 is expressed by T-helper type 1 (Th1) cells, macrophage, monocyte, dendritic cells, CD8+ T cell and other lymphocyte subsets. Galectin-9 is a ligand for TIM3. TIM3-galectin-9 pathway negatively regulates T helper type 1 immunity (PMID: 16286920). TIM3 is a 280-aa membrane protein with a calculated molecular weight of 33 kDa, the higher molecular weights between 50 and 70 kDa detected by this monoclonal antibody probably represent glycosylated TIM3 (PMID: 20107545; 17069754; 11725301).

Storage

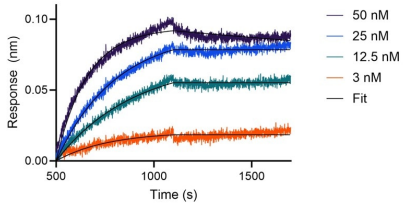
Storage:
Store at -20°C; Avoid exposure to light. Shipped at dry ice.

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

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or E: proteintech@ptglab.com
1(312) 455-8498 (outside USA) W: www.ptglab.com

Selected Validation Data



The affinity of anti-human TIM3 recombinant VHH towards human TIM3 was determined using biolayer interferometry (BLI). Biotinylated, recombinant human TIM3 was immobilized on Streptavidin biosensors and assayed with 3 to 50 nM of CoraLite® Plus 647-conjugated TIM3 VHH (CL647-tmt). Fit indicates a 1:1 binding model fitted to the data.