For Research Use Only

Nano-Secondary® anti-human IgG/anti-rabbit IgG, recombinant VHH, Alexa Fluor® 488 [CTK0101, CTK0102]

www.ptglab.com

Catalog Number: srbAF488-1 47 Publications

Basic Information

Catalog Number:
srbAF488-1

Applications:
IF, WB, FC

Host:
Alpaca

Conjugate:
Alexa Fluor® 488

Type:
Mixture of 2 monoclonal Nanobodies; Secondary Nanobody

Class:
Recombinant

RRID:
AB_2827585

Purification Method:
Recombinant expression, affinity purification IMAC

Description

Nano-Secondary® anti-human IgG/anti-rabbit IgG, recombinant VHH is an anti-human IgG and anti-rabbit IgG specific secondary antibody. It consists of of a mixture of 2 Nanobodies that bind to human IgG and rabbit IgG with high affinity & specificity.

Species Reactivity

Rabbit, Human, Macaque
No cross-reactivity to mouse, rat, sheep, goat, and guinea pig IgG

Physical State

Liquid

Suggested Dilution

Immunofluorescence 1:1,000
Super-resolution microscopy 1:1,000
Western blot 1:1,000

Affinity (K_D)

CTK0101: K_D = 0.2 nM, CTK0102: K_D = 1.2 nM

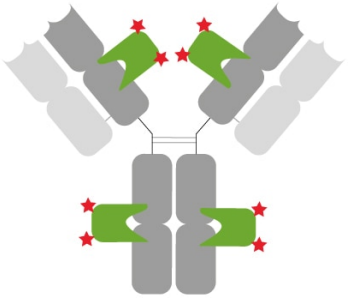
Storage

Storage:
Store at -20°C short term or -80°C long term. Aliquot upon delivery. Avoid freeze-thaw cycles.

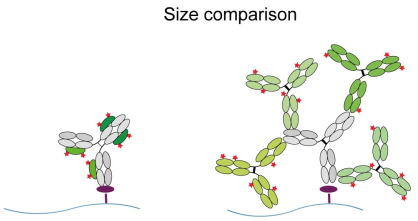
Storage Buffer:
10 mM HEPES pH 7.0, 500 mM NaCl, 5 mM EDTA, Preservative: 0.09 % Sodium azide

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

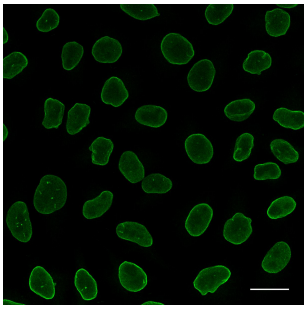
Selected Validation Data



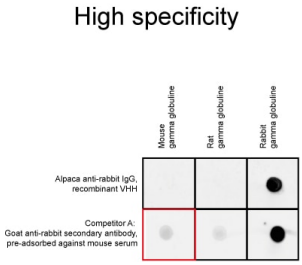
Well-defined and characterized immunostaining: Primary anti-rabbit IgG antibody (grey) with 2 copies each of a rabbit Fab- and Fc-specific monoclonal Nanobodies (green) bound. In total, 8 fluorophores (red stars) label the primary rabbit IgG antibody.



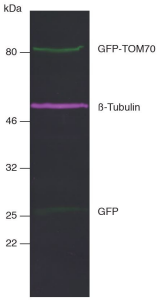
Higher resolution with anti-rabbit IgG Nano-Secondaries compared to conventional secondary antibodies: Left: Formation of a small, precise complex of Nanobodies (green) & primary antibody (grey). Right: Formation of a large, arbitrary complex of multiple polyclonal secondaries (green) & primary rabbit antibody.



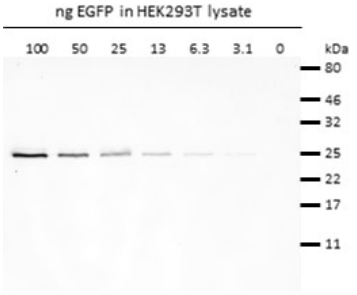
Alpaca anti-rabbit IgG VHH Alexa Fluor® 488 was applied in conjunction with rabbit anti-Lamin B1 antibodies for immunostaining of nuclear lamina (green) in HeLa cells. Scale bar, 20 µm. Images were recorded at the Core Facility Bioimaging at the Biomedical Center, LMU Munich.



HeLa cells were immunostained with rabbit anti-Lamin B1 antibodies and alpaca anti-rabbit IgG VHH Alexa Fluor® 568 (1:1,000). Confocal and gated STED images were acquired with a Leica TCS SP8 STED 3X microscope, pulsed depletion with a 775 nm laser. Images were recorded at the Core Facility Bioimaging at the Biomedical Center, LMU Munich.



Multiple Nano-Secondaries can be applied for multiplex fluorescent Western blotting. This allows multiple targets to be analyzed simultaneously on the same blot at the same time. Multiplex fluorescent Western blot of GFP-TOM70, ®-Tubulin, and GFP in HEK293T cell lysate. Western blot membrane was simultaneously incubated with primary antibodies and Nano-Secondaries. Green: rabbit anti-GFP (ChromoTek PABG1) + alpaca anti-rabbit IgG VHH Alexa Fluor® 488. Magenta: mouse anti-®-Tubulin + alpaca anti-mouse IgG2b VHH Alexa Fluor® 647.



Western blot analysis of EGFP (EGFP-250, ChromoTek) added to HEK293T cell lysate. Detection with rabbit anti-GFP antibody PABG1 (ChromoTek) and alpaca anti-rabbit IgG VHH Alexa Fluor® 488.