For Research Use Only

Nano-Secondary® anti-human IgG/anti-rabbit IgG, recombinant VHH, Alexa Fluor® 647 [CTK0101, CTK0102]

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Catalog Number: srbAF647-1 3 Publications

Basic Information

Catalog Number:
srbAF647-1

Applications:
IF, WB, FC

Host:
Alpaca

Conjugate:
Alexa Fluor® 647

Type:
Mixture of 2 monoclonal Nanobodies; Secondary Nanobody

Class:
Recombinant

RRID:
AB_2827587

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
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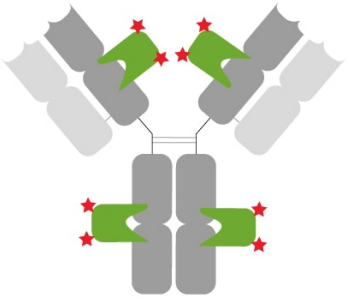
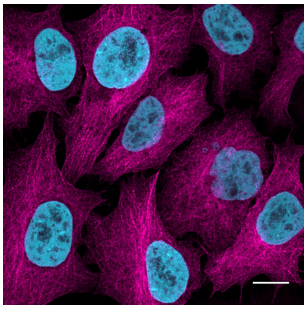
1(312) 455-8498 (outside USA) W: www.ptglab.com

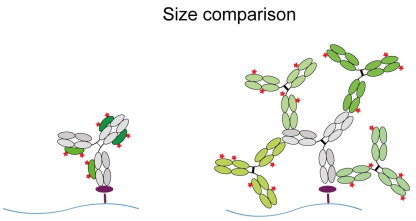
Selected Validation Data



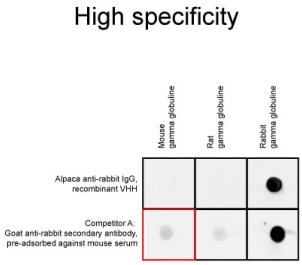
Well-defined and characterized immunostaining: Primary anti-rabbit IgG antibody (grey) with 2 copies each of a rabbit Fab- and Fc-specific monoclonal Nanobodies (green) bound. In total, 8 fluorophores (red stars) label the primary rabbit IgG antibody.



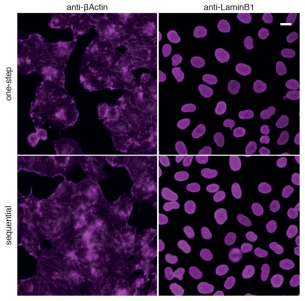
HeLa cells stably expressing Tubulin-GFP at near-endogenous level were immunostained with rabbit anti-GFP PABG1 antibody and alpaca anti-rabbit IgG VHH Alexa Fluor® 647 (magenta). Nuclei were detected with H2B-RFP and RFP-Booster Atto594 (cyan). Scale bar, 10 µm. Images were recorded at the Core Facility Bioimaging at the Biomedical Center, LMU Munich.



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.



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.



One-step immunostaining (top row) vs. sequential immunostaining (bottom row) of HeLa cells. Anti-β-Actin (left column) and anti-LaminB1 (right column) primary rabbit antibodies + secondary alpaca anti-rabbit IgG VHH Alexa Fluor® 647. Scale bar, 20 µm.