For Research Use Only

Nano-Secondary® anti-mouse IgG3, recombinant VHH, Alexa Fluor® 647 [CTK0107]



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Catalog Number: sms3AF647-1

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Applications: IF, WB **Host:** Alpaca

Type: Nanobody Class: Recombinant **RRID:** AB_2827584

Conjugate: Alexa Fluor® 647 **Purification Method:** Recombinant expression, affinity purification

Description Nano-Secondary® anti-mouse IgG3, Fab-specific recombinant VHH is an anti-mouse IgG subclass specific antibody. This secondary antibody product consists of a Nanobody that binds to mouse IgG3 with high affinity & specificity.

Species Reactivity Mouse IgG3 Fc-fragment

 $No\ cross\ "-reactivity": goat, guine a\ pig,\ rabbit,\ rat,\ sheep,\ human,\ macaque\ serum\ proteins,\ mouse\ lgG1,\ lgG2a,\ lgG2b,\ lgG2c$

Physical State Liquid

Suggested Dilution Immunofluorescence 1:1,000

Western blot 1:1,000

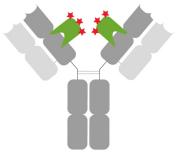
Affinity (K_D) CTK0107: $K_D = 5.7 \text{ nM}$

Storage

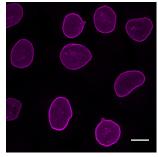
Store at -20°C short term or -80°C long term. Aliquot upon delivery. Avoid freeze-thaw cycles.

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

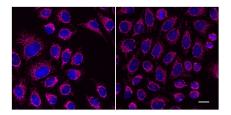
Selected Validation Data



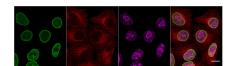
Anti-mouse IgG3 Nano-Secondary: Well-defined and characterized immunostaining. Primary antimouse IgG3 antibody (grey) with 2 copies of a monoclonal mouse Fab- specific Nanobody (green) bound. In total, 6 fluorophores (red stars) label the mouse IgG3 primary antibody.

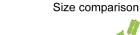


HeLa cells were immunostained with mouse IgG3 anti-Lamin A/C antibody + alpaca anti-mouse IgG3 VHH Alexa Fluor® 647 (magenta). Scale bar, 10 μ m. Images were recorded at the Core Facility Bioimaging at the Biomedical Center, LMU Munich.



One-step staining (left) vs. sequential staining (right) of HeLa cells with anti-MOT (mitochondria) mouse IgG3 monoclonal primary antibody + alpaca anti-mouse IgG3 VHH Alexa Fluor® 647 (magenta). Cell nuclei are stained with DAPI (blue). Scale bar, 20 u m









Multiplexed immunostaining of HeLa cells with two alpaca anti-mouse Nano-Secondaries and one conventional secondary antibody. Green: mouse IgG3 anti-Lamin + alpaca anti-mouse IgG3 VHH Alexa Fluor® 488. Red: mouse IgG1 anti-Tubulin + alpaca anti-mouse gG1 VHH Alexa Fluor® 568. Magenta: rabbit anti-Ki67 + conventional polyclonal secondary anti-rabbit-AF647. Scale bar, 10 μ m. Images were recorded at the Core Facility Bioimaging at the Biomedical Center, LMU Munich.

Higher resolution with anti-mouse IgG3 Nano-Secondary 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 antibody.