Nano-Secondary® alpaca anti-mouse IgG1, recombinant VHH, CoraLite® Plus 647 [CTK0103, CTK0104]

Product code: smsG1CL647-1

Properties

Description	Monovalent, recombinant secondary single domain antibody to mouse IgG1: Mixture of 2 alpaca monoclonal Nanobodies, Fc-specific, CoraLite® Plus 647 conjugated
Product type	Nano-Secondary® Reagent, secondary Nanobody (VHH)
Format	Alpaca single domain antibody, monovalent
Host	Alpaca-derived, recombinantly produced in bacteria
Target/Specificity	Fc-fragment of mouse IgG1
Cross-reactivity	No cross-reactivity to goat, guinea pig, human, macaque, rabbit, rat, and sheep serum and to mouse IgG2a, IgG2b, IgG2c, IgG3, and IgM
Immunogen	Purified mouse IgG1
Clonality	Biclonal: mixture of 2 monoclonal Nanobodies
Clones	CTK0103 (VHH0302), CTK104 (VHH0305)
Affinity (*Kd*)	CTK0103: KD = 0.13 nM, CTK104: KD = 0.63 nM
Conjugate	CoraLite® Plus 647
Excitation / Emission	Excitation max: 654 nm, Emission max: 674 nm
Degree of labeling (DOL)	2 fluorophores per Nanobody
Synonyms	Alpaca single domain antibody, VHH, Nanobody, binding domain of single domain antibody, Nano-antibody
Validation	Application validated for immunofluorescence and western blotting. Determination of cross-reactivity, sequence, affinity, melting point, and degree of labeling (DOL).
Purity	Recombinantly expressed and purified
Form	Buffered aqueous solution
Concentration	0.5 mg/mL
Storage buffer	10 mM HEPES pH 7.0, 500 mM NaCl, 5 mM EDTA Preservative: 0.09 % sodium azide, safety datasheet (SDS): sodium azide
Storage instructions	Shipped at ambient temperature. Store at +4°C short term or -20°C long term. Stable for 1 year at -20°C.
Size	10 µL; 100 µL
RRID	AB_2941312

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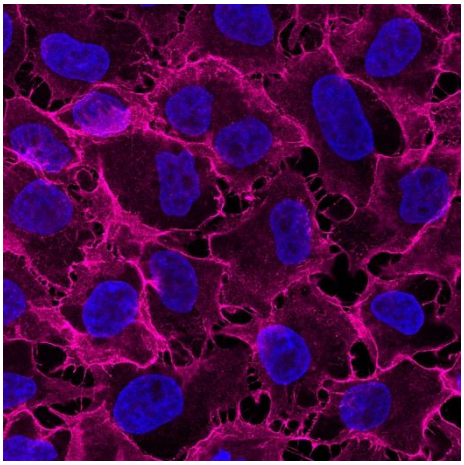
Applications

Immunofluorescence: recommended starting dilution 1:500.
Western blot: recommended starting dilution 1:500.
The optimal dilution should be determined by the user. A titration range is recommended.

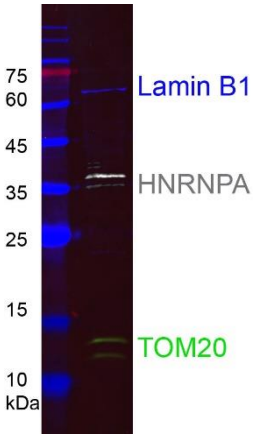
Tested applications

Immunofluorescence



Immunofluorescence analysis of HeLa cells stained with mouse IgG1 anti-CD147 antibody and Nano-Secondary® alpaca anti-mouse IgG1, recombinant VHH, CoraLite® Plus 647 (smsG1CL647-1, magenta). Nuclei were stained with DAPI (blue). Images were recorded at the Core Facility Bioimaging at the Biomedical Center, LMU Munich.

Western blot



HEK-293 cell lysates were subjected to SDS-PAGE followed by multiplex western blot analysis with 3 mouse primary antibodies including anti-Lamin B1 (66095-1-Ig), anti-HNRNPA (67445-1-Ig), and anti-Tom20 (66777-1-Ig). Primary antibodies were detected using 3 mouse IgG subclass-specific nano-secondary reagents including Nano-Secondary® alpaca anti-mouse IgG1, recombinant VHH, CoraLite® Plus 647 (smsG1CL647-1, blue), Nano-Secondary® alpaca anti-mouse IgG2a, recombinant VHH, CoraLite® Plus 750 (smsG2aCL750-1, grey), and Nano-Secondary® alpaca anti-mouse IgG2b, recombinant VHH, CoraLite® Plus 488 (smsG2bCL488-1, green).

Only for research applications, not for diagnostic or therapeutic use.

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