

Alpaca anti-mouse IgG1, Fc-specific recombinant VHH, Alexa Fluor® 647

Product code: sms1AF647-1

Description	Monovalent, recombinant secondary single domain antibodies to mouse IgG1: Mixture of 2 alpaca monoclonal Nanobodies, Fc-specific, Alexa Fluor 647 conjugated
Product type	Secondary Nanobody
Format	Alpaca single domain antibodies, monovalent
Host	Alpaca-derived, recombinantly produced in bacteria
Target/ Specificity	This Nanobody mixture recognizes the Fc fragment of mouse IgG1.
Cross-reactivity	No cross-reactivity to rabbit, rat, sheep, goat, guinea pig, human, and macaque serum
Immunogen	Purified mouse IgG1
Clonality	Biclonal: mixture of 2 monoclonal Nanobodies
Clones	VHH0302, VHH0305
Conjugate	Site-directed conjugation to Alexa Fluor 647
Excitation/ Emission	Excitation max: 650 nm, Emission max: 665 nm
Synonyms	Alpaca single domain antibody, V _H H, Nanobody, binding domain of single domain antibody, Nano-antibody
Validation	Application validated for immunofluorescence and Western blotting Determination of cross-reactivity, subclass specificity, sequence, affinity, melting point, and degree of labeling (DOL)
Affinity (K_D)	VHH0302: K _D = 0.1 nM, VHH0305: K _D = 0.6 nM
DOL	2 fluorophores per Nanobody
Purity	Recombinantly expressed and purified
Form	Buffered aqueous solution
Storage buffer	10 mM HEPES pH 7.0, 500 mM NaCl, 5 mM EDTA, Preservative: 0.09% Sodium azide, Safety datasheet (SDS): Sodium azide SDS
Concentration	0.5 g/L
Size	10 µL; 100 µL
Storage instructions	Shipped at ambient temperature. Store at -20°C short term or -80°C long term. Aliquot upon delivery. Avoid freeze-thaw cycles. Stable for 6 months after arrival.
Applications	IF/ICC: recommended starting dilution 1:500 (e.g. PBS supplemented with 4% BSA) Western blot: recommended starting dilution 1:1,000 (e.g. PBS supplemented with 0.075% Tween-20 and 5% skimmed milk) The optimal dilution depends on the application and should be determined by the user. A titration from range from 1:250 up to 1:2,000 is recommended. Note: Image acquisition time may have to be optimized.

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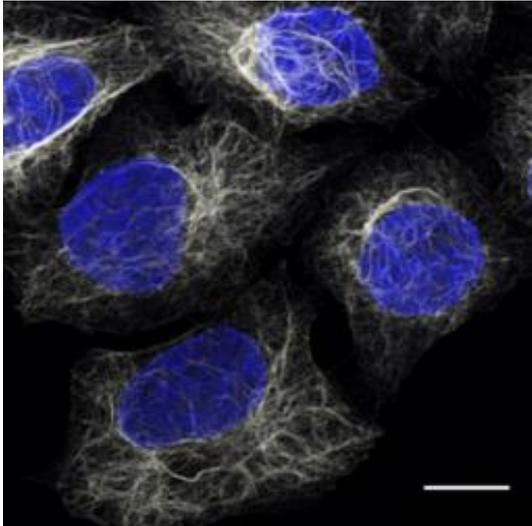
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Tested applications

Immunofluorescence

Primary antibody: mouse anti-Vimentin antibody

Secondary antibody: alpaca anti-mouse IgG1, Fc-specific recombinant V_HH, Alexa Fluor 647 (sms1AF647-1) 1:500

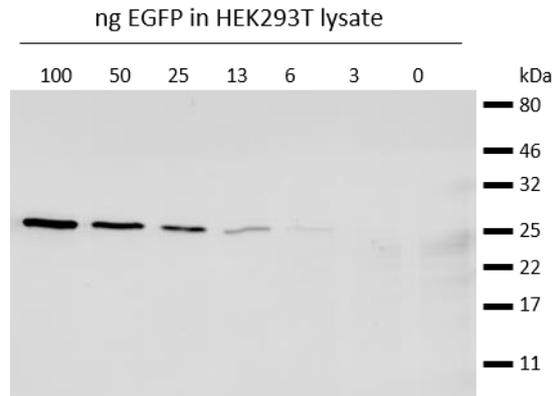


Immunostaining of Vimentin in HeLa cells with mouse anti-Vimentin antibody and alpaca anti-mouse IgG1, Fc-specific recombinant V_HH, Alexa Fluor 647 (grey). Nuclei were stained with DAPI (blue). Scale bar, 10 µm.

Western Blot

Primary antibody: mouse anti-GFP antibody

Secondary antibody: alpaca anti-mouse IgG1, Fc-specific recombinant V_HH, Alexa Fluor 647 (sms1AF647-1) 1:1,000



Western blot analysis of EGFP (EGFP-250, ChromoTek) added to HEK293T cell lysate. Detection with mouse anti-GFP antibody and alpaca anti-mouse IgG1, Fc-specific recombinant V_HH, Alexa Fluor 647.

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

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