Alpaca anti-rabbit IgG, recombinant VHH, Alexa Fluor® 568

Product code: srbAF568-1

Description	Monovalent, recombinant secondary single domain antibodies to rabbit IgG: Mixture of 2 alpaca monoclonal Nanobodies, Fab- and Fc-specific, Alexa Fluor 568 conjugated
Product Type	Secondary Nanobody
Format	Alpaca single domain antibodies, monovalent
Host	Alpaca-derived, recombinantly produced in bacteria
Target/ Specificity	This Nanobody mixture recognizes Fab and Fc fragments of rabbit IgG.
Cross-Reactivity	No cross-reactivity to mouse, rat, sheep, goat, and guinea pig serum Cross-reactivity to human and macaque serum
Clonality	Biclonal: mixture of 2 monoclonal Nanobodies
Clones	VHH0244, VHH0245
Conjugate	Site-directed conjugation to Alexa Fluor 568
Excitation/ Emission	Excitation max: 578 nm, Emission max: 603 nm
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)
Affinity (K_D)	VHH0244: K_D = 0.18 nM, VHH0245: K_D = 1.2 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/-4°F. Avoid freeze-thaw cycles. Aliquot upon arrival. Protect from light. Stable for 6 months.
Applications	IF/ICC: recommended starting dilution 1:1,000 (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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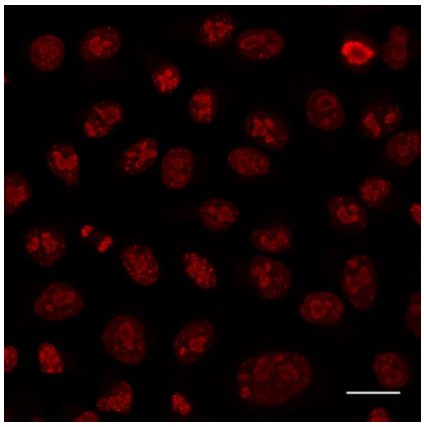
Tested applications

Immunofluorescence

Primary antibody: rabbit anti-Ki67 antibodies

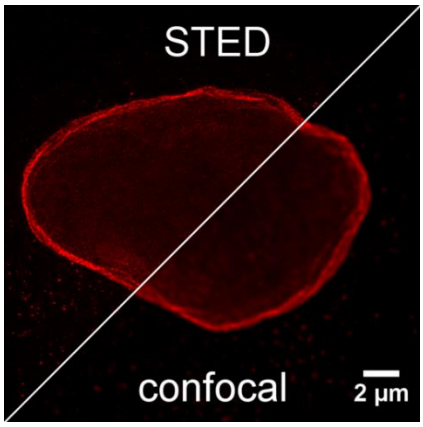
Secondary antibody: alpaca anti-rabbit IgG, recombinant V_HH, Alexa Fluor 568 (srbAF568-1) 1:1,000



Immunostaining of Ki67 in HeLa cells with rabbit anti-Ki67 antibodies and alpaca anti-rabbit IgG, recombinant V_HH, Alexa Fluor 568 (red). Scale bar, 20 µm.

Primary antibody: rabbit anti-Lamin B1 antibodies

Secondary antibody: alpaca anti-rabbit IgG, recombinant V_HH, Alexa Fluor 568 (srbAF568-1) 1:1,000



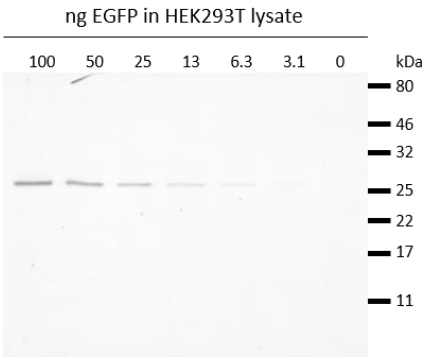
Immunostaining of nuclear lamina in HeLa cells with rabbit anti-Lamin B1 antibodies and alpaca anti-rabbit IgG, recombinant V_HH, Alexa Fluor 568 (red). Scale bar, 2 µm.

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.

Western Blot

Primary antibody: rabbit anti-GFP PABG1 antibody (PABG1, ChromoTek) 1:1,000

Secondary antibody: alpaca anti-rabbit IgG, recombinant V_HH, Alexa Fluor 568 (srbAF568-1) 1:1,000



Western blot analysis of EGFP (EGFP-250, ChromoTek) added to HEK293T cell lysate. Detection with rabbit anti-GFP PABG1 antibody and alpaca anti-rabbit IgG, recombinant V_HH, Alexa Fluor 568.

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