

## Alpaca anti-mouse IgG1, Fc-specific recombinant VHH, Alexa Fluor® 488

Product code: sms1AF488-1

<b>Description</b>	Monovalent, recombinant secondary single domain antibodies to mouse IgG1: Mixture of 2 alpaca monoclonal Nanobodies, Fc-specific, Alexa Fluor 488 conjugated
<b>Product type</b>	Secondary Nanobody
<b>Format</b>	Alpaca single domain antibodies, monovalent
<b>Host</b>	Alpaca-derived, recombinantly produced in bacteria
<b>Target/ Specificity</b>	This Nanobody mixture recognizes the Fc fragment of mouse IgG1.
<b>Cross-reactivity</b>	No cross-reactivity to rabbit, rat, sheep, goat, guinea pig, human, and macaque serum
<b>Immunogen</b>	Purified mouse IgG1
<b>Clonality</b>	Biclonal: mixture of 2 monoclonal Nanobodies
<b>Clones</b>	VHH0302, VHH0305
<b>Conjugate</b>	Site-directed conjugation to Alexa Fluor 488
<b>Excitation/ Emission</b>	Excitation max: 490 nm, Emission max: 525 nm
<b>Synonyms</b>	Alpaca single domain antibody, V <sub>H</sub> H, Nanobody, binding domain of single domain antibody, Nano-antibody
<b>Validation</b>	Application validated for immunofluorescence and Western blotting  Determination of cross-reactivity, subclass specificity, sequence, affinity, melting point, and degree of labeling (DOL)
<b>Affinity (K<sub>D</sub>)</b>	VHH0302: K <sub>D</sub> = 0.1 nM, VHH0305: K <sub>D</sub> = 0.6 nM
<b>DOL</b>	2 fluorophores per Nanobody
<b>Purity</b>	Recombinantly expressed and purified
<b>Form</b>	Buffered aqueous solution
<b>Storage buffer</b>	10 mM HEPES pH 7.0, 500 mM NaCl, 5 mM EDTA, Preservative: 0.09% Sodium azide, Safety datasheet (SDS): <a href="#">Sodium azide SDS</a>
<b>Concentration</b>	0.5 g/L
<b>Size</b>	10 µL; 100 µL
<b>Storage instructions</b>	Shipped at ambient temperature. Store at -20°C/-4°F. Avoid freeze-thaw cycles. Aliquot upon arrival. Protect from light. Stable for 6 months.
<b>Applications</b>	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.

## Alpaca anti-mouse IgG1, Fc-specific recombinant V<sub>H</sub>H, Alexa Fluor<sup>®</sup> 488

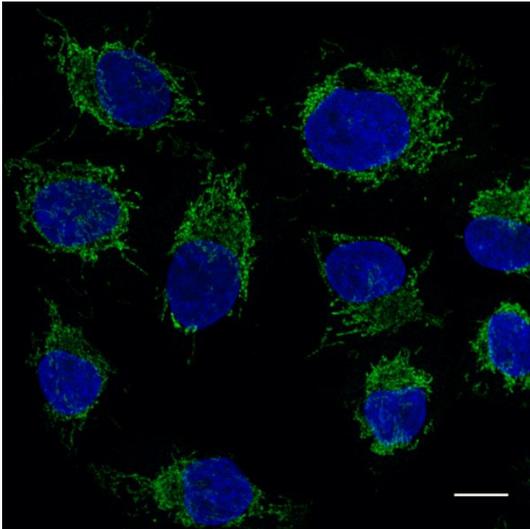
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### Tested applications

#### Immunofluorescence

Primary antibody: mouse anti-COX4 antibody

Secondary antibody: alpaca anti-mouse IgG1, Fc-specific recombinant V<sub>H</sub>H, Alexa Fluor 488 (sms1AF488-1) 1:500

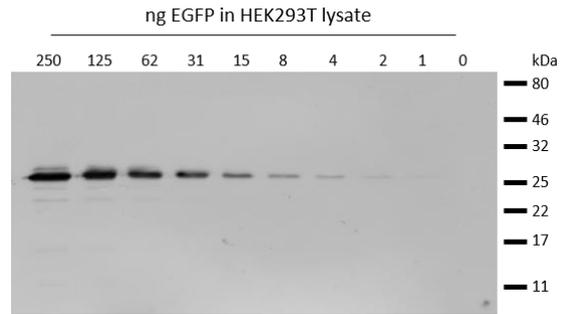


Immunostaining of COX4 in HeLa cells with mouse anti-COX4 antibody and alpaca anti-mouse IgG1, Fc-specific recombinant V<sub>H</sub>H, Alexa Fluor 488 (green). Nuclei were stained with DAPI (blue). Scale bar, 10 μm.

#### Western Blot

Primary antibody: mouse anti-GFP antibody

Secondary antibody: alpaca anti-mouse IgG1, Fc-specific recombinant V<sub>H</sub>H, Alexa Fluor 488 (sms1AF488-1) 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<sub>H</sub>H, Alexa Fluor 488.

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

*ChromoTek is a registered trademark of ChromoTek GmbH. Nanobody is a registered trademark of Ablynx, a Sanofi company. Alexa Fluor is a registered trademark of Life Technologies Corporation, a part of Thermo Fisher Scientific Inc.*