Alpaca anti-mouse IgG2b, Fc-specific recombinant VHH, Alexa Fluor® 488

Product code: sms2bAF488-1

Description	Monovalent, recombinant secondary single domain antibodies to mouse IgG2b: Mixture of 2 alpaca monoclonal Nanobodies, Fc-specific, Alexa Fluor 488 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 IgG2b.
Cross-reactivity	No cross-reactivity to rabbit, rat, sheep, goat, guinea pig, human, and macaque serum
Immunogen	Purified mouse IgG2b
Clonality	Biclonal: mixture of 2 monoclonal Nanobodies
Clones	VHH0275, VHH0288
Conjugate	Site-directed conjugation to Alexa Fluor 488
Excitation/ Emission	Excitation max: 490 nm, Emission max: 525 nm
Synonyms	Alpaca single domain antibody, V_HH, 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)	VHH0275: K_D = 5.0 nM, VHH0288: K_D = 0.2 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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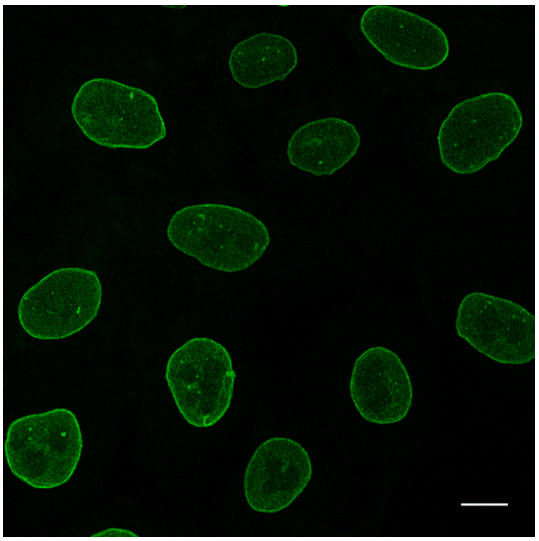
Tested applications

Immunofluorescence

Primary antibody: mouse anti-Lamin A/C antibody

Secondary antibody: alpaca anti-mouse IgG2b, Fc-specific recombinant V_HH, Alexa Fluor 488 (sms2bAF488-1) 1:1,000

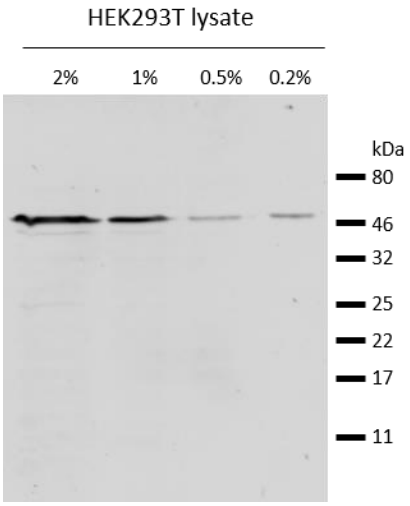


Immunostaining of Lamin in HeLa cells with mouse anti-Lamin A/C antibody and alpaca anti-mouse IgG2b, Fc-specific recombinant V_HH, Alexa Fluor 488 (green). Scale bar, 10 µm.

Western Blot

Primary antibody: mouse anti-ß-Tubulin antibody

Secondary antibody: alpaca anti-mouse IgG2b, Fc-specific recombinant V_HH, Alexa Fluor 488 (sms2bAF488-1) 1:1,000



Western blot analysis of endogenous ß-Tubulin in HEK293T cell lysate. Detection with mouse anti-ß-Tubulin antibody and alpaca anti-mouse IgG2b, Fc-specific recombinant V_HH, Alexa Fluor 488.

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