Nano-Secondary® alpaca anti-mouse IgG1, recombinant VHH, Alexa Fluor® 568 [CTK0103, CTK0104]

Product code: sms1AF568-1

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Properties

|	
Description	Monovalent, recombinant secondary single domain antibodies to mouse IgG1: Mixture of 2 alpaca monoclonal Nanobodies, Fc-specific, Alexa Fluor® 568 conjugated
Product Type	Nano-Secondary®, 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, and IgG3
Immunogen	Purified mouse IgG1
Clonality	Biclonal: mixture of 2 monoclonal Nanobodies
Clones	CTK0103, CTK0104 (VHH0302, VHH0305)
Affinity (*Kd*)	CTK0103: *Kd* = 0.1 nM, CTK0104: *Kd* = 0.6 nM
Conjugate	Site-directed conjugation to Alexa Fluor 568
Excitation/ Emission	Excitation max: 578 nm, Emission max: 603 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 -20°C/-4°F. Avoid freeze-thaw cycles. Aliquot upon arrival. Protect from light. Stable for 6 months.
Size	10 µL; 100 µL
RRID	AB_2827579

| Applications	Spin down material before use!
	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)
	Note: 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.

Tested Applications

Immunfluorescence
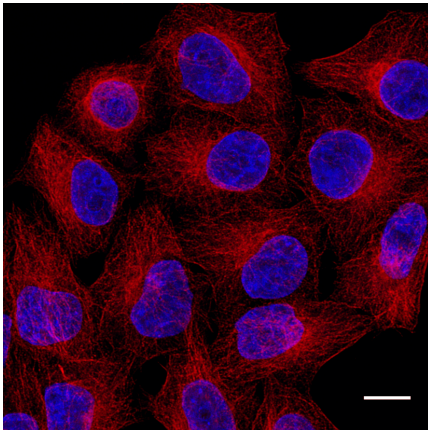
Immunostaining of Tubulin in HeLa cells with mouse anti‑αTubulin antibody and Nano‑Secondary® alpaca anti‑mouse IgG1, recombinant VHH, Alexa Fluor® 568 [CTK0103, CTK0104] 1:500 (red). Nuclei were stained with DAPI (blue). Scale bar, 10 µm.
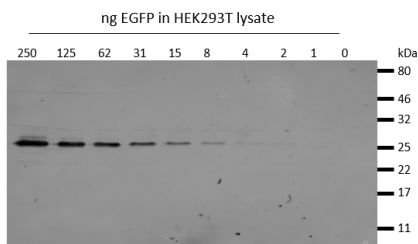
Western Blot

Western blot analysis of EGFP (EGFP‑250, ChromoTek) added to HEK293T cell lysate. Detection with mouse anti‑GFP antibody and Nano‑Secondary® alpaca anti‑mouse IgG1, recombinant VHH, Alexa Fluor® 568 [CTK0103, CTK0104] 1:1,000.

Product overview and related products

Nano-Secondaries (Alexa Fluor® conjugated)	Product code
Nano-Secondary® alpaca anti-human IgG/anti-rabbit IgG, recombinant VHH, Alexa Fluor® 488 [CTK0101, CTK0102]	srbAF488-1-10; -100
Nano-Secondary® alpaca anti-human IgG/anti-rabbit IgG, recombinant VHH, Alexa Fluor® 568 [CTK0101, CTK0102]	srbAF568-1-10; -100
Nano-Secondary® alpaca anti-human IgG/anti-rabbit IgG, recombinant VHH, Alexa Fluor® 647 [CTK0101, CTK0102]	srbAF647-1-10; -100
Nano-Secondary® alpaca anti-mouse IgG1, recombinant VHH, Alexa Fluor® 488 [CTK0103, CTK0104]	sms1AF488-1-10; -100
Nano-Secondary® alpaca anti-mouse IgG1, recombinant VHH, Alexa Fluor® 568 [CTK0103, CTK0104]	sms1AF568-1-10; -100
Nano-Secondary® alpaca anti-mouse IgG1, recombinant VHH, Alexa Fluor® 647 [CTK0103, CTK0104]	sms1AF647-1-10; -100
Nano-Secondary® alpaca anti-mouse IgG2b, recombinant VHH, Alexa Fluor® 488 [CTK0105, CTK0106]	sms2bAF488-1-10; -100
Nano-Secondary® alpaca anti-mouse IgG2b, recombinant VHH, Alexa Fluor® 568 [CTK0105, CTK0106]	sms2bAF568-1-10; -100
Nano-Secondary® alpaca anti-mouse IgG2b, recombinant VHH, Alexa Fluor® 647 [CTK0105, CTK0106]	sms2bAF647-1-10; -100
Nano-Secondary® alpaca anti-mouse IgG3, recombinant VHH, Alexa Fluor® 647 [CTK0107]	sms3AF647-1-10; -100
Nano-Secondaries (unconjugated)	
Nano-Secondary® alpaca anti-human IgG/anti-rabbit IgG, recombinant VHH, for 2x Cys conjugation [CTK0101]	srbGCys2-1-500
Nano-Secondary® alpaca anti-rabbit IgG, recombinant VHH, for 2x Cys conjugation [CTK0102]	srbGCys2-2-500
Nano-Secondary® alpaca anti-mouse IgG1, recombinant VHH, for 2x Cys conjugation [CTK0103]	smsG1Cys2-1-500
Nano-Secondary® alpaca anti-mouse IgG1, recombinant VHH, for 2x Cys conjugation [CTK0104]	smsG1Cys2-2-500
Nano-Secondary® alpaca anti-mouse IgG2b, recombinant VHH, for 2x Cys conjugation [CTK0105]	smsG2bCys2-1-500
Nano-Secondary® alpaca anti-mouse IgG2b, recombinant VHH, for 2x Cys conjugation [CTK0106]	smsG2bCys2-2-500

For product details, information, and ordering visit www.chromotek.com.

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