Product Datasheet

Goat anti-Bat IgG (H+L) Secondary Antibody
NB7237

Unit Size: 1 ml

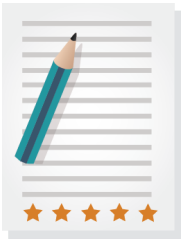
Store at 4C. Do not freeze.

www.novusbio.com technical@novusbio.com

Publications: 6

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB7237

Updated 10/23/2024 v.20.1



NB7237

Goat anti-Bat IgG (H+L) Secondary Antibody

Product Information

Unit Size	1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Phosphate Buffered Saline (PBS)

Product Description

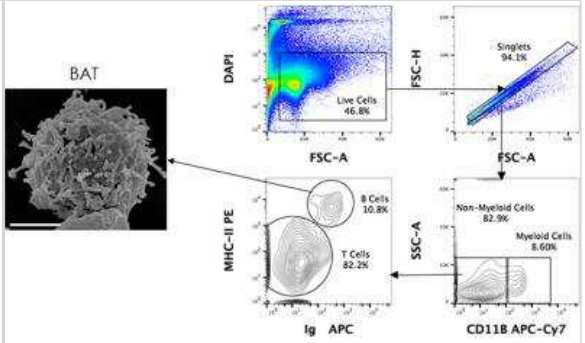
Host	Goat
Species	Bat
Specificity/Sensitivity	By immunoelectrophoresis and ELISA this Goat anti-Bat IgG (H+L) Secondary Antibody reacts specifically with Bat IgG and with light chains common to other Bat immunoglobulins. Antibody has been shown to react with bat genus species Pteropus vampirus, Desmodus rotundus, Eptesicus fuscus, Tadrida pumila, T. condylura, Hypsignathus monstrosus, Rosettus aegyptiacus, Epomorphus crypturus, Molossus species. And Phylostomus species. No antibody was detected against non-immunoglobulin serum proteins. This may cross react with IgG from other species.
Immunogen	This Goat anti-Bat IgG (H+L) Secondary Antibody was developed against bat IgG-heavy and light chain.

Product Application Details

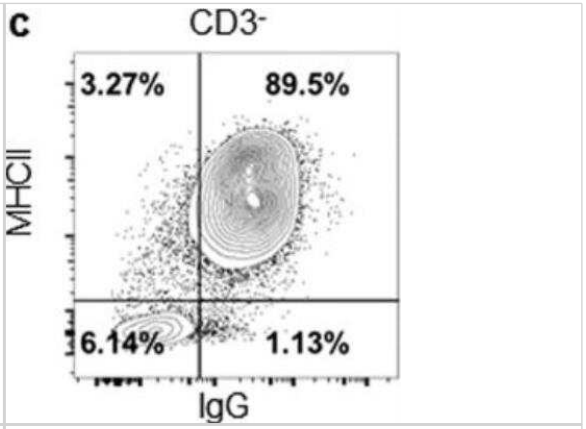
Applications	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:1000 - 1:30000, Flow Cytometry, ELISA 1:1000 - 1:30000, Immunohistochemistry 1:200- 1:2000, Immunocytochemistry/ Immunofluorescence 1:200- 1:2000, Immunohistochemistry-Paraffin 1:200- 1:2000

Images

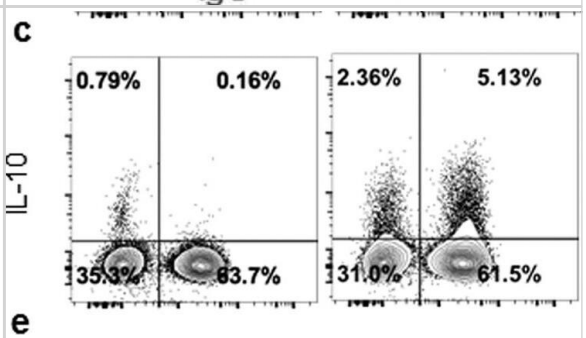
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Scanning electron microscopy (SEM) of FACS sorted B cells. P. alecto splenocytes were surface-stained for CD11b, MHC-II and Ig antibodies and sorted as CD11b- MHC-II+ sIg+ (B cells), CD11b+ (myeloid cells) and CD11b- MHC-II- sIg- cells (T cells). Sorted B cells were processed for viewing under a scanning electron microscope. Scanned electron micrograph of sorted Pteropus alecto MHC-II+sIg+ B cells. Bar represents 2 um. Image collected and cropped by CiteAb from the following publication (https://www.frontiersin.org/article/10.3389/fimmu.2019.00489/full), licensed under a CC-BY license.



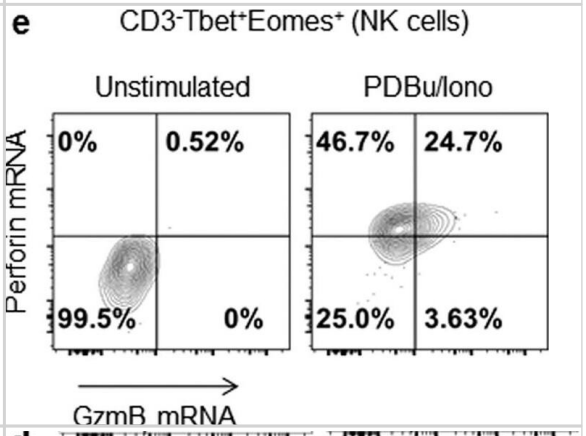
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Strategy for immunophenotyping of lymphocytes in P. alecto.Bat splenocytes were stained with cross-reactive antibodies and analysed by FACS. Strategy to identify B cells based on CD3- MHCII+ and IgG+ staining. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/articles/srep37796), licensed under a CC-BY license.



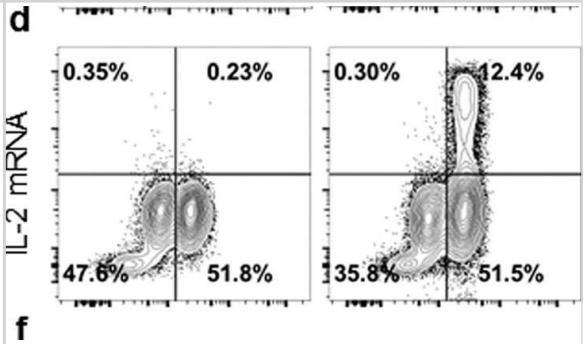
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Bat T cell production of cytokines & cytolytic factors upon mitogenic stimulation.Bat splenocytes (a–c,g–i) or PBMCs (d–f) were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Detection of intracellular TNF (a), IFN-γ (b), IL-10 (c) was performed at the protein level, & production of IL- 2 (d), granzyme B (e), perforin (f), IL-17a (g), IL-22 (h) & TGF-β1 (i) was detected at the mRNA level by Flow-FISH. Dot plots obtained with one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



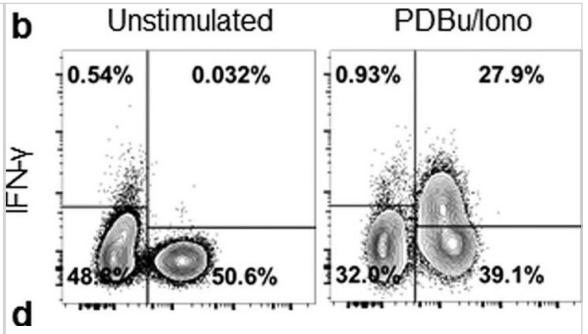
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Production of cytokines by B & NK cells upon mitogenic stimulation.Bat splenocytes or PBMCs were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Cells were gated on CD3− MHCII+ (B cells) (a,b) or CD3− Tbet+ Eomes+ (NK cells). Production of intracellular TNF (a,c), IL-10 (b), IFN-γ (d) was done at the protein level, & production of granzyme B & perforin (e) was performed at the mRNA level by Flow-FISH. Dot plots from one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



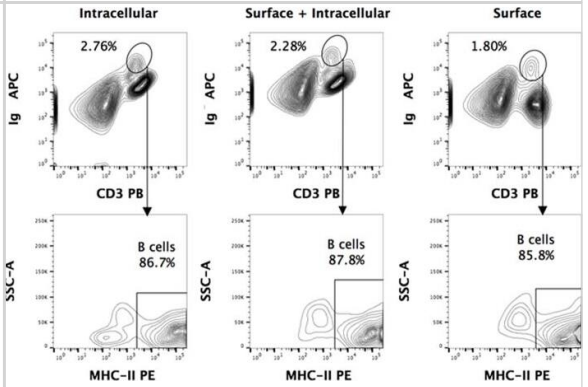
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Bat T cell production of cytokines & cytolytic factors upon mitogenic stimulation.Bat splenocytes (a–c,g–i) or PBMCs (d–f) were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Detection of intracellular TNF (a), IFN-γ (b), IL-10 (c) was performed at the protein level, & production of IL- 2 (d), granzyme B (e), perforin (f), IL-17a (g), IL-22 (h) & TGF-β1 (i) was detected at the mRNA level by Flow-FISH. Dot plots obtained with one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



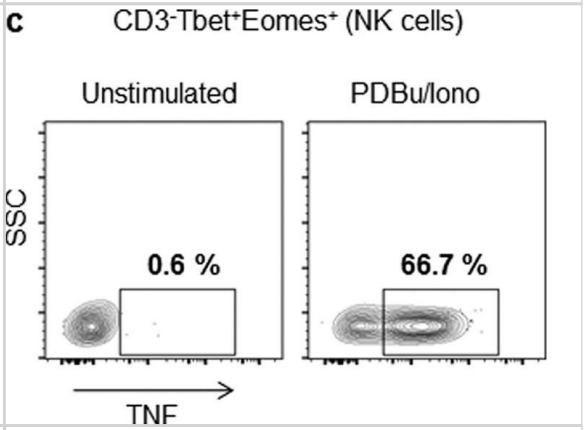
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Bat T cell production of cytokines & cytolytic factors upon mitogenic stimulation.Bat splenocytes (a–c,g–i) or PBMCs (d–f) were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Detection of intracellular TNF (a), IFN-γ (b), IL-10 (c) was performed at the protein level, & production of IL- 2 (d), granzyme B (e), perforin (f), IL-17a (g), IL-22 (h) & TGF-β1 (i) was detected at the mRNA level by Flow-FISH. Dot plots obtained with one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



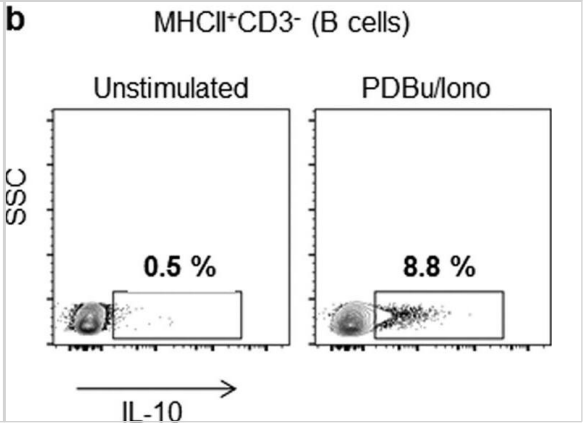
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Intracellular & surface Ig staining of P. alecto splenocytes. Dead cells were excluded using Live/Dead eFluor 506 dye & live cells were gated for singlets using forward scatter height (FSC-H) & area (FSC-A). For all the staining approaches (surface only, intracellular only, or surface + intracellular), a distinct sIg+ CD3+/− population is observed. Greater than 85% of this population is MHCII+. Comparable percentages of these cells were obtained with surface staining only vs. intracellular staining only, thus strongly suggesting that this population is truly a sIg+ B cell population. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30930908), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

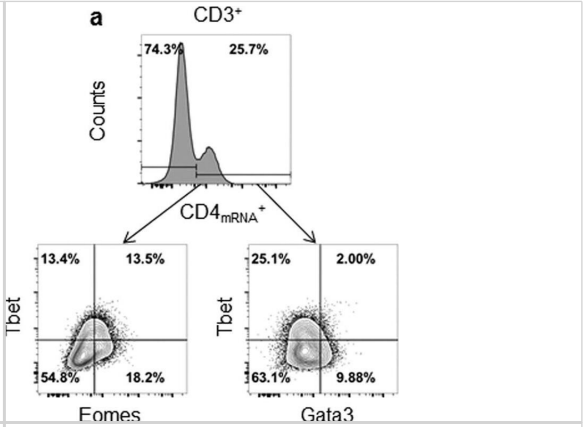
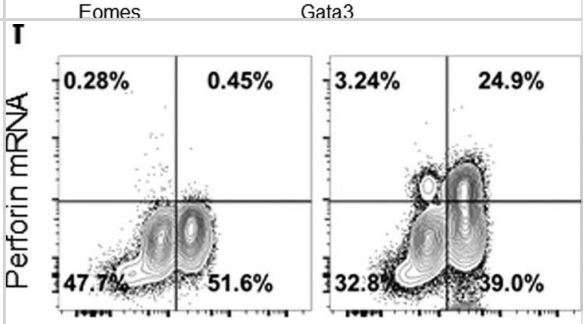
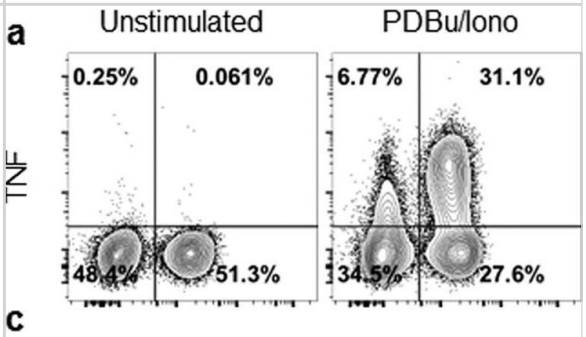
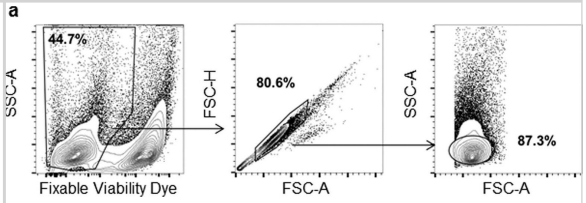


Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Production of cytokines by B & NK cells upon mitogenic stimulation.Bat splenocytes or PBMCs were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Cells were gated on CD3− MHCII+ (B cells) (a,b) or CD3− Tbet+ Eomes+ (NK cells). Production of intracellular TNF (a,c), IL-10 (b), IFN-γ (d) was done at the protein level, & production of granzyme B & perforin (e) was performed at the mRNA level by Flow-FISH. Dot plots from one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

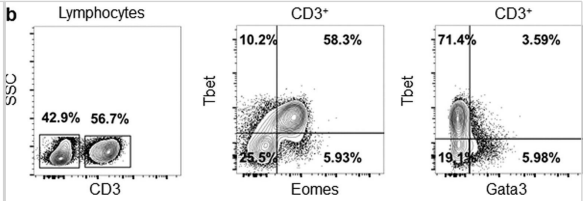


Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Production of cytokines by B & NK cells upon mitogenic stimulation.Bat splenocytes or PBMCs were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Cells were gated on CD3− MHCII+ (B cells) (a,b) or CD3− Tbet+ Eomes+ (NK cells). Production of intracellular TNF (a,c), IL-10 (b), IFN-γ (d) was done at the protein level, & production of granzyme B & perforin (e) was performed at the mRNA level by Flow-FISH. Dot plots from one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

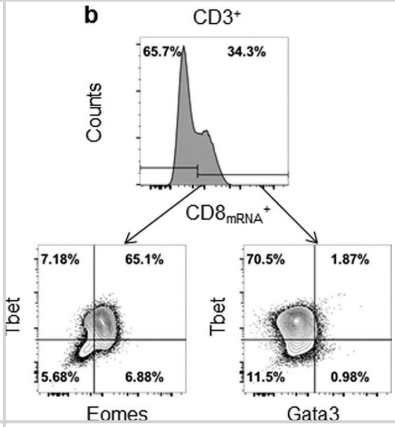


Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Detection of T cell subsets by combined Flow-FISH & antibody staining.Bat splenocytes were stained with CD3, Tbet, Eomes & Gata3 antibodies followed by in-situ hybridization with probes specific for CD4mRNA (a) & CD8mRNA (b). One data set is shown & is representative of 2 independent experiments performed with 2 different bat spleens. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Bat T cell production of cytokines & cytolytic factors upon mitogenic stimulation.Bat splenocytes (a–c,g–i) or PBMCs (d–f) were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Detection of intracellular TNF (a), IFN-γ (b), IL-10 (c) was performed at the protein level, & production of IL- 2 (d), granzyme B (e), perforin (f), IL-17a (g), IL-22 (h) & TGF-β1 (i) was detected at the mRNA level by Flow-FISH. Dot plots obtained with one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Bat T cell production of cytokines & cytolytic factors upon mitogenic stimulation.Bat splenocytes (a–c,g–i) or PBMCs (d–f) were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Detection of intracellular TNF (a), IFN-γ (b), IL-10 (c) was performed at the protein level, & production of IL- 2 (d), granzyme B (e), perforin (f), IL-17a (g), IL-22 (h) & TGF-β1 (i) was detected at the mRNA level by Flow-FISH. Dot plots obtained with one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Strategy for immunophenotyping of lymphocytes in P. alecto.Bat splenocytes were stained with cross-reactive antibodies & analysed by FACS. (a) Gating strategy based on live cells, singlets & lymphocyte region. (b) CD3+ cell population analysed for the expression of transcription factors Gata3, Tbet & Eomes. (c) Strategy to identify B cells based on CD3− MHCII+ & IgG+ staining. (d) Strategy to identify NK cells based on CD3−, Eomes+ & Tbet+ staining. One set of data obtained from one bat spleen is shown, & is representative of 4 different bat spleens analyzed. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

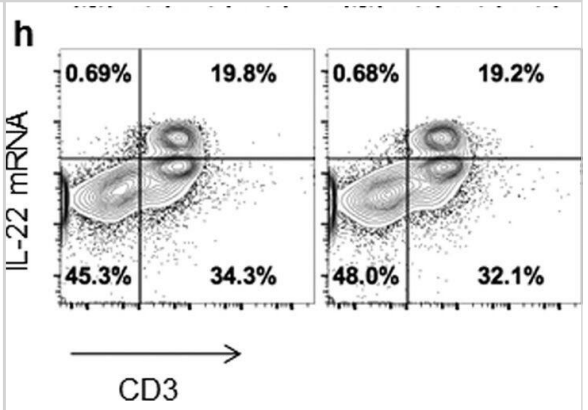
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Strategy for immunophenotyping of lymphocytes in P. alecto.Bat splenocytes were stained with cross-reactive antibodies & analysed by FACS. (a) Gating strategy based on live cells, singlets & lymphocyte region. (b) CD3+ cell population analysed for the expression of transcription factors Gata3, Tbet & Eomes. (c) Strategy to identify B cells based on CD3− MHCII+ & IgG+ staining. (d) Strategy to identify NK cells based on CD3−, Eomes+ & Tbet+ staining. One set of data obtained from one bat spleen is shown, & is representative of 4 different bat spleens analyzed. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



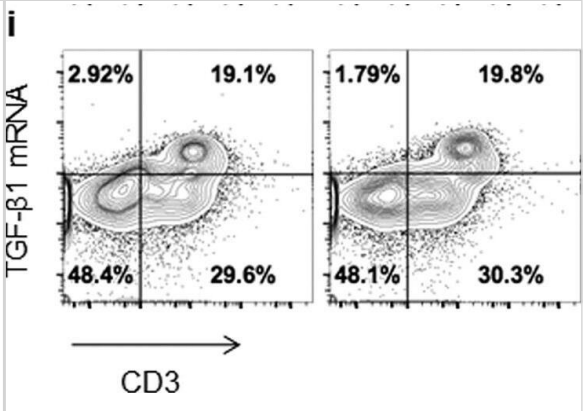
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Detection of T cell subsets by combined Flow-FISH & antibody staining.Bat splenocytes were stained with CD3, Tbet, Eomes & Gata3 antibodies followed by in-situ hybridization with probes specific for CD4mRNA (a) & CD8mRNA (b). One data set is shown & is representative of 2 independent experiments performed with 2 different bat spleens. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



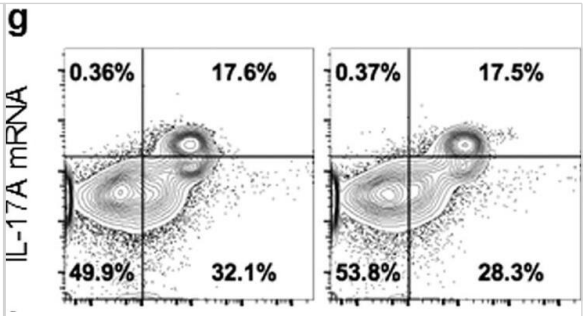
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Bat T cell production of cytokines & cytolytic factors upon mitogenic stimulation.Bat splenocytes (a–c,g–i) or PBMCs (d–f) were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Detection of intracellular TNF (a), IFN-γ (b), IL-10 (c) was performed at the protein level, & production of IL- 2 (d), granzyme B (e), perforin (f), IL-17a (g), IL-22 (h) & TGF-β1 (i) was detected at the mRNA level by Flow-FISH. Dot plots obtained with one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



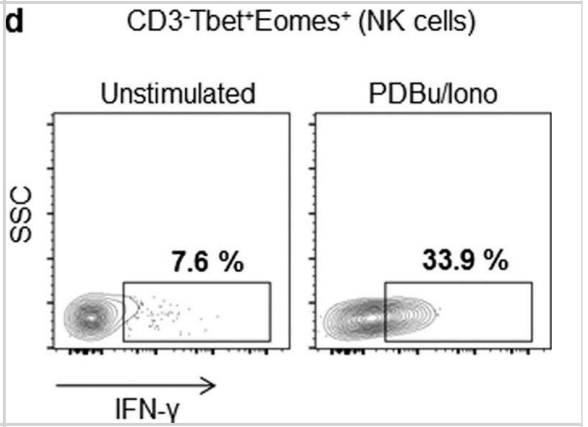
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Bat T cell production of cytokines & cytolytic factors upon mitogenic stimulation.Bat splenocytes (a–c,g–i) or PBMCs (d–f) were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Detection of intracellular TNF (a), IFN-γ (b), IL-10 (c) was performed at the protein level, & production of IL- 2 (d), granzyme B (e), perforin (f), IL-17a (g), IL-22 (h) & TGF-β1 (i) was detected at the mRNA level by Flow-FISH. Dot plots obtained with one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



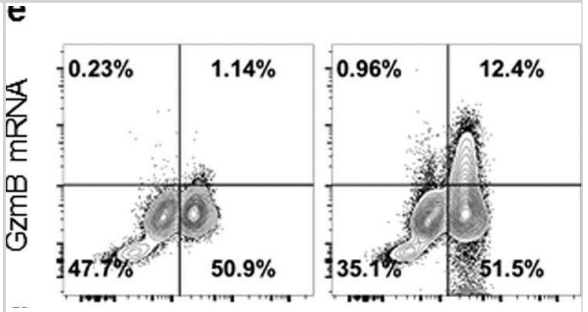
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Bat T cell production of cytokines & cytolytic factors upon mitogenic stimulation.Bat splenocytes (a–c,g–i) or PBMCs (d–f) were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Detection of intracellular TNF (a), IFN-γ (b), IL-10 (c) was performed at the protein level, & production of IL- 2 (d), granzyme B (e), perforin (f), IL-17a (g), IL-22 (h) & TGF-β1 (i) was detected at the mRNA level by Flow-FISH. Dot plots obtained with one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



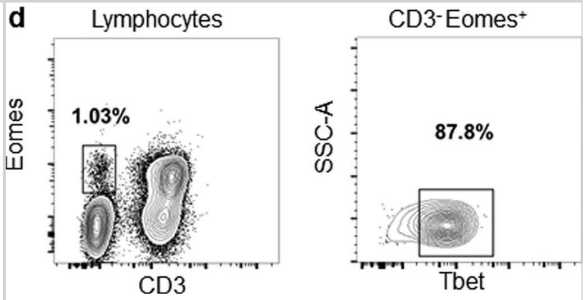
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Production of cytokines by B & NK cells upon mitogenic stimulation.Bat splenocytes or PBMCs were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Cells were gated on CD3− MHCII+ (B cells) (a,b) or CD3− Tbet+ Eomes+ (NK cells). Production of intracellular TNF (a,c), IL-10 (b), IFN-γ (d) was done at the protein level, & production of granzyme B & perforin (e) was performed at the mRNA level by Flow-FISH. Dot plots from one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

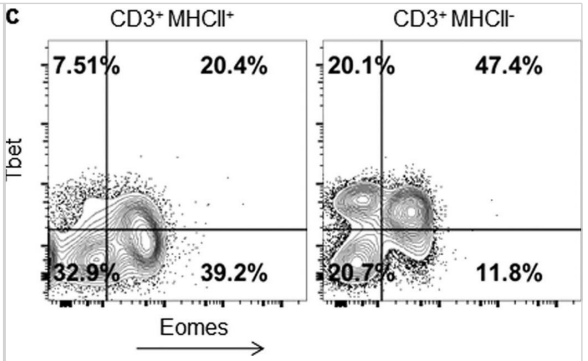
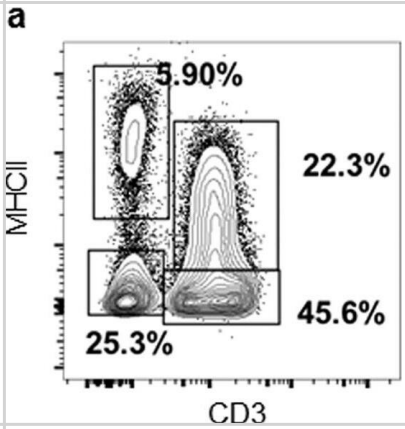
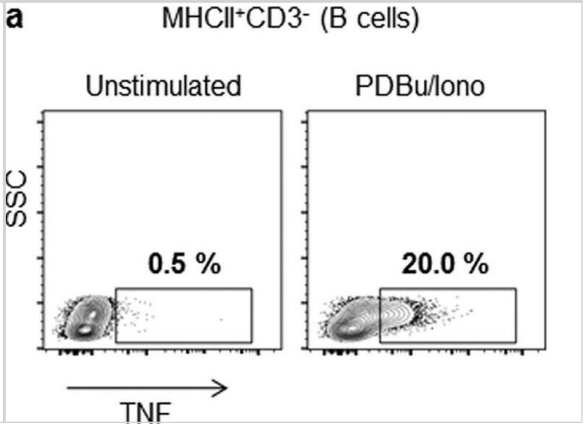


Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Bat T cell production of cytokines & cytolytic factors upon mitogenic stimulation.Bat splenocytes (a–c,g–i) or PBMCs (d–f) were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Detection of intracellular TNF (a), IFN-γ (b), IL-10 (c) was performed at the protein level, & production of IL- 2 (d), granzyme B (e), perforin (f), IL-17a (g), IL-22 (h) & TGF-β1 (i) was detected at the mRNA level by Flow-FISH. Dot plots obtained with one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Strategy for immunophenotyping of lymphocytes in P. alecto.Bat splenocytes were stained with cross-reactive antibodies & analysed by FACS. (a) Gating strategy based on live cells, singlets & lymphocyte region. (b) CD3+ cell population analysed for the expression of transcription factors Gata3, Tbet & Eomes. (c) Strategy to identify B cells based on CD3− MHCII+ & IgG+ staining. (d) Strategy to identify NK cells based on CD3−, Eomes+ & Tbet+ staining. One set of data obtained from one bat spleen is shown, & is representative of 4 different bat spleens analyzed. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Expression of MHCII molecules by CD3+ T cells.(a) FACS analysis of splenocytes from one bat based on detection of MHCII & CD3 molecules. (b) Individual percentages of MHCII+ T cells in spleen, MLN, PBMCs & BM from 3–4 bats. The mean (horizontal bar) & SEM are shown. (c) Dot plot featuring Tbet & Eomes expression in MHCII+ & MHCII− CD3+ splenocytes from one bat. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Expression of MHCII molecules by CD3+ T cells.(a) FACS analysis of splenocytes from one bat based on detection of MHCII & CD3 molecules. (b) Individual percentages of MHCII+ T cells in spleen, MLN, PBMCs & BM from 3–4 bats. The mean (horizontal bar) & SEM are shown. (c) Dot plot featuring Tbet & Eomes expression in MHCII+ & MHCII− CD3+ splenocytes from one bat. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Flow Cytometry: Goat anti-Bat IgG (H+L) Secondary Antibody [NB7237] - Production of cytokines by B & NK cells upon mitogenic stimulation.Bat splenocytes or PBMCs were stimulated for 4 h with PDBu/ionomycin or media in the presence of brefeldin A & monensin. Cells were gated on CD3− MHCII+ (B cells) (a,b) or CD3− Tbet+ Eomes+ (NK cells). Production of intracellular TNF (a,c), IL-10 (b), IFN-γ (d) was done at the protein level, & production of granzyme B & perforin (e) was performed at the mRNA level by Flow-FISH. Dot plots from one bat are shown & are representative of the results obtained with 2–3 different bats. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/27883085), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Periasamy P, Hutchinson PE, Chen J et al. Studies on B Cells in the Fruit-Eating Black Flying Fox (Pteropus alecto) Front Immunol 2019-04-02 [PMID: 30930908] (FLOW)

Ramirez de Arellano E, Sanchez-Lockhart M, Perteguer MJ et al. First Evidence of Antibodies Against Lloviu Virus in Schreiber's Bent-Winged Insectivorous Bats Demonstrate a Wide Circulation of the Virus in Spain Viruses 2019-04-24 [PMID: 31010201]

Zhou P, Chionh YT, Irac SE et al. Unlocking bat immunology: establishment of Pteropus alecto bone marrow-derived dendritic cells and macrophages Sci Rep 2016-12-10 [PMID: 27934903] (FLOW)

Martinez Gomez JM, Periasamy P, Dutertre CA et al. Phenotypic and functional characterization of the major lymphocyte populations in the fruit-eating bat Pteropus alecto Sci Rep 2016-11-25 [PMID: 27883085] (FLOW)

Gorka M, Schinkothe J, Ulrich R et al. Characterization of Experimental Oro-Nasal Inoculation of Seba's Short-Tailed Bats (Carollia perspicillata) with Bat Influenza A Virus H18N11 Viruses 2020-02-26 [PMID: 32093076]

Drexler JF, Seelen A, Corman VM et al. Bats worldwide carry hepatitis E virus-related viruses that form a putative novel genus within the family Hepeviridae. J Virol 2012-09-01 [PMID: 22696648]

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Secondary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB7237

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications