

Product Datasheet

Lymphotoxin-alpha/TNF-beta Antibody (3F12.2D3) - Chimeric - Azide and BSA Free NBP2-81105-0.2mg

Unit Size: 0.2 mg

Store at 4C for up to 3 months. For longer storage, aliquot and store at -20C.

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Updated 9/9/2025 v.20.1

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NBP2-81105-0.2mg

Lymphotoxin-alpha/TNF-beta Antibody (3F12.2D3) - Chimeric - Azide and BSA Free

Product Information	
Unit Size	0.2 mg
Concentration	1 mg/ml
Storage	Store at 4C for up to 3 months. For longer storage, aliquot and store at -20C.
Clonality	Monoclonal
Clone	3F12.2D3
Preservative	0.02% Proclin 300
Isotype	IgG Kappa
Purity	Protein A purified
Buffer	PBS

Product Description	
Description	Novus Biologicals Rabbit Lymphotoxin-alpha/TNF-beta Antibody (3F12.2D3) - Chimeric - Azide and BSA Free (NBP2-81105) is a recombinant monoclonal antibody validated for use in WB, ELISA and Flow. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	4049
Gene Symbol	LTA
Species	Human
Specificity/Sensitivity	3F12 binds to human LTalpha3 and LT-alpha-beta (with a KD of ~0.3 nM, determined by BIACORE; ~ 37 pM, determined by ELISA) in both its soluble homotrimeric and membrane heterotrimeric forms. LTalpha belongs to the tumor necrosis factor (TNF) superfamily and is secreted as a homo-trimer (LTalpha3), or is expressed on the cell surface in complex with LTbeta. Lymphotoxin is produced by lymphocytes and in its homotrimeric form binds to TNFRSF1A/TNFR1, TNFRSF1B/TNFR2 and TNFRSF14/HVEM. LTalpha3 signaling induces target cells to upregulate many chemokines and cytokines in an NFkB-dependent manner.
Immunogen	3F12 was prepared by hyperimmunizing BALB/c mice with purified recombinant human LTalpha expressed in E. coli - the hybridoma clone was selected for its ability to bind LTalpha3 by ELISA. The CDRs of the antibody were grafted to the framework regions of the mice mAb 2G7 to create the chimeric version of the antibody.

Product Application Details	
Applications	Western Blot, ELISA, Flow Cytometry, Neutralization, Surface Plasmon Resonance
Recommended Dilutions	Western Blot, Flow Cytometry, ELISA, Surface Plasmon Resonance, Neutralization

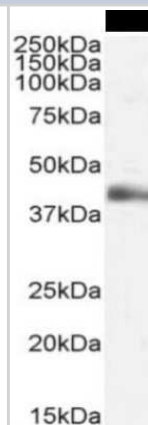


Application Notes

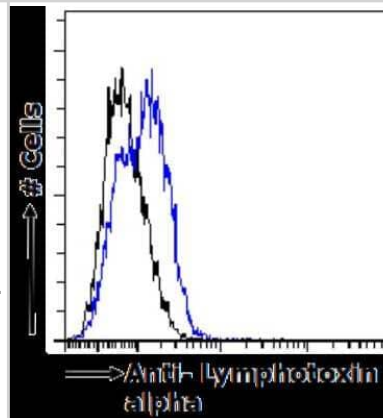
This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG2b format, for improved compatibility with existing reagents, assays and techniques. The properties of the chimeric 3F12 is equivalent to that of the original 3F12 mAb. 3F12 is able to bind to Th2 cells and additionally is can functionally block human LTalpha3 versus an isotype control (trastuzumab) - LTalpha3-induced ICAM upregulation is blocked on HUVEC (Human Umbilical Endothelial Cells) (IC50 0.04 nM) and LTalpha3-induced IL-8 is blocked in A549 cells. The antibody has also been used in ELISA studies to detect LT-alpha and to measure binding.

Images

Western Blot: Lymphotoxin-alpha/TNF-beta Antibody (3F12.2D3) - Chimeric [NBP2-81105] - Western Blot using Lymphotoxin-alpha/TNF-beta Antibody (3F12.2D3) [NBP2-81105]. Lipopolysaccharide(LPS)-treated human peripheral blood monocyte (PBM) lysate (35ug protein in RIPA buffer) was resolved on a 15% SDS PAGE gel and blots probed with the rabbit IgG-chimeric version of 3F12.2D3 [NBP2-81105] at 2 ug/ml before detection using an anti-rabbit secondary antibody. Protein was detected by chemiluminescence. The expected unmodified running size for Lymphotoxin alpha is 22.3kDa, though the form shown here is likely glycosylated. NBP2-81105 successfully detected Lymphotoxin alpha in LPS-treated human PBM samples.



Flow Cytometry: Lymphotoxin-alpha/TNF-beta Antibody (3F12.2D3) - Chimeric [NBP2-81105] - Flow-cytometry using the Lymphotoxin-alpha/TNF-beta Antibody (3F12.2D3) [NBP2-81105]. U937 cells were fixed using 2% PFA, permeabilised using 0.5% Triton and stained with unimmunized rabbit IgG antibody (isotype control, black line) or the rabbit IgG-chimeric version of 3F12.2D3 (NBP2-81105, blue line) at a dilution of 1:100 for 1h at RT. After washing, bound antibody was detected using a goat anti-rabbit IgG AlexaFluor 488 antibody at a dilution of 1:1000 and cells analyzed using a FACSCanto flow-cytometer.





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Products Related to NBP2-81105-0.2mg

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-61307-10ug	Recombinant Human Lymphotoxin-alpha/TNF-beta Protein

Limitations

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

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