

## Product datasheet for **TA386108**

### LTA Rabbit Monoclonal Antibody [Clone ID: 3F12.2D3]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	3F12.2D3
Applications:	ELISA, FC, Neutralize
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG, kappa
Clonality:	Monoclonal
Immunogen:	3F12 was prepared by hyperimmunizing BALB/c mice with purified recombinant human LT $\alpha$ expressed in E. coli - the hybridoma clone was selected for its ability to bind LT $\alpha$ 3 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.
Specificity:	<p>3F12 binds to human LT<math>\alpha</math>3 and LT<math>\alpha</math><math>\beta</math> (with a KD of ~0.3 nM, determined by BIAcore; ~ 37 pM, determined by ELISA) in both its soluble homotrimeric and membrane heterotrimeric forms. LT<math>\alpha</math> belongs to the tumor necrosis factor (TNF) superfamily and is secreted as a homotrimer (LT<math>\alpha</math>3), or is expressed on the cell surface in complex with LT<math>\beta</math>. Lymphotoxin is produced by lymphocytes and in its homotrimeric form binds to TNFRSF1A/TNFR1, TNFRSF1B/TNFR2 and TNFRSF14/HVEM. LT<math>\alpha</math>3 signaling induces target cells to upregulate many chemokines and cytokines in an NF<math>\kappa</math>B-dependent manner.</p> <p>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 LT<math>\alpha</math>3 versus an isotype control (trastuzumab) - LT<math>\alpha</math>3-induced ICAM upregulation is blocked on HUVEC (Human Umbilical Endothelial Cells) (IC50 0.04 nM) and LT<math>\alpha</math>3-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.</p>
Formulation:	PBS with 0.02% Proclin 300.
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Please store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. Avoid freeze and thaw cycles.



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**Stability:** 3 years from dispatch.

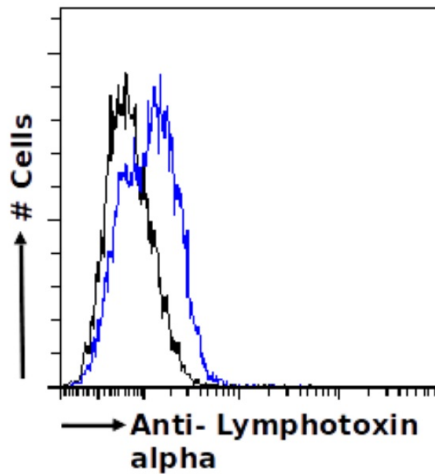
**Gene Name:** lymphotoxin alpha

**Database Link:** [Entrez Gene 4049 Human P01374](#)

**Synonyms:** LT; LT-alpha; OTTHUMP00000165897; TNF-beta; TNFB; TNFSF1

**Note:** 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.

**Product images:**



Flow-cytometry using the anti-Lymphotoxin alpha antibody 3F12.2D3 (TA386108) U937 cells were fixed using 2% PFA, permeabilised using 0.5% Triton and stained with unimmunized rabbit IgG antibody (MOPC-21; isotype control, black line) or the rabbit IgG-chimeric version of 3F12.2D3 (TA386108, 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.



Western Blot using anti-Lymphotoxin alpha antibody 3F12.2D3 (TA386108) Lipopolysaccharide(LPS)-treated human peripheral blood monocyte (PBM) lysate (35µg protein in RIPA buffer) was resolved on a 15% SDS PAGE gel and blots probed with the rabbit IgG-chimeric version of 3F12.2D3 (TA386108) at 2 µg/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. TA386108 successfully detected Lymphotoxin alpha in LPS-treated human PBM samples.