

**Mouse Anti-Tumor necrosis factor/TNF beta/Lymphotoxin/LT alpha [9B9]: MC0202**

**Intended Use:** For Research Use Only

**Description:** Lymphotoxin alpha or tumor necrosis beta, a member of the tumor necrosis factor family, is a cytokine produced by lymphocytes. LTA is highly inducible, secreted, and exists as homotrimeric molecule. LTA forms heterotrimers with lymphotoxin-beta which anchors lymphotoxin-alpha to the cell surface. LTA mediates a large variety of inflammatory, immunostimulatory, and antiviral responses. LTA is also involved in the formation of secondary lymphoid organs during development and plays a role in apoptosis. Lymphotoxin is produced by lymphocytes and cytotoxic for a wide range of tumor cells in vitro and in vivo. Genetic variations in LTA are a cause of susceptibility psoriatic arthritis (PSORAS). PSORAS is an inflammatory, seronegative arthritis associated with psoriasis. It is a heterogeneous disorder ranging from a mild, non-destructive disease to a severe, progressive, erosive arthropathy. Five types of psoriatic arthritis have been defined: asymmetrical oligoarthritis characterized by primary involvement of the small joints of the fingers or toes; asymmetrical arthritis which involves the joints of the extremities; symmetrical polyarthritis characterized by a rheumatoidlike pattern that can involve hands, wrists, ankles, and feet; arthritis mutilans, which is a rare but deforming and destructive condition; arthritis of the sacroiliac joints and spine (psoriatic spondylitis).

**Specifications**

|               |                                                                                    |
|---------------|------------------------------------------------------------------------------------|
| Clone:        | 9B9                                                                                |
| Source:       | Mouse                                                                              |
| Isotype:      | IgG1                                                                               |
| Reactivity:   | Human                                                                              |
| Localization: | Membrane, secreted                                                                 |
| Formulation:  | Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN <sub>3</sub> ) |
| Storage:      | Store at 2°- 8°C                                                                   |
| Applications: | ICC/IF, IHC, WB                                                                    |
| Package:      |                                                                                    |

| Description                                                         | Catalog No. | Size |
|---------------------------------------------------------------------|-------------|------|
| Tumor necrosis factor/ TNF beta/ Lymphotoxin/ LT alpha Concentrated | MC0202      | 1 ml |

**IHC Procedure**

|                           |                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------|
| Positive Control Tissue:  | Melanoma, HeLa cells, spleen lysate                                                                          |
| Concentrated Dilution:    | 25-500                                                                                                       |
| Pretreatment:             | Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C |
| Incubation Time and Temp: | 30-60 minutes @ RT                                                                                           |
| Detection:                | Refer to the detection system manual                                                                         |

\* Result should be confirmed by an established diagnostic procedure.

**References:**

1. Tumor necrosis factor-β Nco1 polymorphism and susceptibility to sepsis following major elective surgery. Baghel K, et al. Surg Infect (Larchmt). Jun;15(3):213-20, 2014.
2. Etanercept decreases synovial expression of tumour necrosis factor-α and lymphotoxin-α in rheumatoid arthritis. Neregård P, et al. Scand J Rheumatol. 43(2):85-90, 2014.
3. Evidence that TNF-β (lymphotoxin α) can activate the inflammatory environment in human chondrocytes. Buhrmann C, et al. Arthritis Res Ther. 15(6):R202, 2013.
4. In vivo depletion of lymphotoxin-alpha expressing lymphocytes inhibits xenogeneic graft-versus-host-disease. Chiang EY, et al. PLoS One. 7(3):e33106, 2012.
5. Lymphotoxin (TNF-beta). Takaoka Y, et al. Nihon Rinsho. Jul;68 Suppl 7:93-5, 2010.
6. Limited role for lymphotoxin α in the host immune response to Mycobacterium tuberculosis. Allie N, et al. J Immunol. Oct 1;185(7):4292-301, 2010. Lymphotoxin-alpha and TNF have essential but independent roles in the evolution of the granulomatous response in experimental leprosy. Haggé DA, et al. Am J Pathol. Apr;174(4):1379-89, 2009.

Doc. 100-MC0202  
Rev. A