

TNF- α (D2D4) XP[®] Rabbit mAb (Mouse Specific) (PE Conjugate)

100 μ l (50 tests)

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Entrez-Gene ID #21926
UniProt ID #P06804

rev. 01/07/15

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications
F
Endogenous

Species Cross-Reactivity*
M, R

Isotype
Rabbit IgG

Description: This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in mouse cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated TNF- α (D2D4) XP[®] Rabbit mAb (Mouse Specific) #11948.

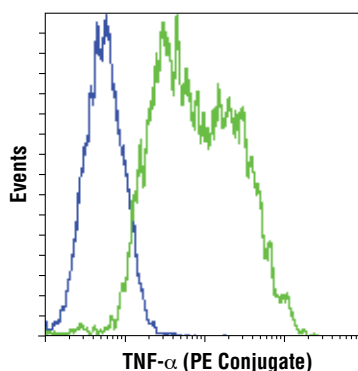
Background: TNF- α , the prototypical member of the TNF protein superfamily, is a homotrimeric type-II membrane protein (1,2). Membrane-bound TNF- α is cleaved by the metalloprotease TACE/ADAM17 to generate a soluble homotrimer (2). Both membrane and soluble forms of TNF- α are biologically active. TNF- α is produced by a variety of immune cells including T cells, B cells, NK cells, and macrophages (1). Cellular response to TNF- α is mediated through interaction with receptors TNF-R1 and TNF-R2 and results in activation of pathways that favor both cell survival and apoptosis depending on the cell type and biological context. Activation of kinase pathways (including JNK, Erk1/2, p38 MAPK, and NF- κ B) promotes the survival of cells, while TNF- α -mediated activation of caspase-8 leads to programmed cell death (1,2). TNF- α plays a key regulatory role in inflammation and host defense against bacterial infection, notably *Mycobacterium tuberculosis* (3).

Specificity/Sensitivity: TNF- α (D2D4) XP[®] Rabbit mAb (Mouse Specific) (PE Conjugate) recognizes endogenous levels of total TNF- α protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a recombinant mouse TNF- α protein.

Background References:

- (1) Aggarwal, B.B. (2003) *Nat Rev Immunol* 3, 745-56.
- (2) Hehlhans, T. and Pfeffer, K. (2005) *Immunology* 115, 1-20.
- (3) Lin, P.L. et al. (2007) *J Invest Dermatol Symp Proc* 12, 22-5.



Flow cytometric analysis of Raw 264.7 cells, untreated (blue) or treated with LPS (100 ng/ml, 6 hr) and Brefeldin A #9972 (300 ng/ml, last 3 hr of treatment) (green), using TNF- α (D2D4) XP[®] Rabbit mAb (Mouse Specific) (PE Conjugate).

Storage: Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibodies. Protect from light. Do not freeze.

***Species cross-reactivity is determined by western blot using the unconjugated antibody.**

Recommended Antibody Dilutions:

Flow Cytometry

1:50

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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