

AP03010PU-N**Polyclonal Antibody to cfp10 / esxB - Aff - Purified****Alternate names:**

10 kDa culture filtrate antigen cfp10, ESAT-6-like protein esxB, MT3988, MTV027.09, Rv3874, Secreted antigenic protein MTSA-10, lhp, mtsA10

Quantity:

0.1 mg

Concentration:

1.0 mg/ml

Background:

CFP10 (10 kDa culture filtrate protein) is a low molecular weight protein isolated from Mycobacterium tuberculosis culture filtrates. CFP10 and the 6 kDa early secretory antigen of T cells (ESAT6) are secreted in abundance by Mycobacterium tuberculosis and are frequently recognized by T cells from infected people. The genes encoding these proteins have been deleted from the genome of the vaccine strain Bacille Calmette Guerin (BCG).

CFP10 is one of a small number of secreted M. tuberculosis proteins now identified, that appear to play key roles in tuberculosis pathogenesis and in the stimulation of immunity.

Uniprot ID:

[P0A566](#)

NCBI:

[NP_218391](#)

GenelD:

[886194](#)

Host:

Rabbit

Immunogen:

CFP10 (Rv3874) of Mycobacterium tuberculosis

Format:

State: Liquid purified IgG fraction (> 95% pure by SDS-PAGE).

Purification: Protein-A affinity chromatography.

Buffer System: PBS, pH 7.4 with 15 mM sodium azide as preservative.

Applications:

Suitable for Western Blotting under Reducing conditions: 0.2-1 µg/ml.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

The polyclonal antibody reacts with CFP10 (LHP), a 12,3 kDa antigen encoded by gene Rv3874 of Mycobacterium tuberculosis.

The antibody recognizes CFP10 of Mycobacterium tuberculosis H37Rv and Mycobacterium bovis; it reacts also with recombinant antigen produced in Escherichia coli.

Storage:

Store undiluted at 2-8°C.

DO NOT FREEZE!

Shelf life: one year from despatch.

General Readings:

1. Cole ST, Brosch R, Parkhill J, Garnier T, Churcher C, Harris D, et al. Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence. Nature. 1998 Jun 11;393(6685):537-44. PubMed PMID: 9634230.

2. Arlehamn CS, Sidney J, Henderson R, Greenbaum JA, James EA, Moutafsi M, Coler R, McKinney DM, Park D, Taplitz R, Kwok WW, Grey H, Peters B, Sette A: Dissecting mechanisms of immunodominance to the common tuberculosis antigens ESAT-6, CFP10, Rv2031c (hspX), Rv2654c (TB7.7), and Rv1038c (EsxJ). J Immunol. 2012 May

15;188(10):5020-31.

3. Yang H, Chen H, Liu Z, Ma H, Qin L, Jin R, Zheng R, Feng Y, Cui Z, Wang J, Liu J, Hu Z: A novel B-cell epitope identified within Mycobacterium tuberculosis CFP10/ESAT-6 protein. PLoS One. 2013;8(1):e52848.

Pictures:

Figure 1. Western Blotting analysis (reducing conditions) of recombinant protein CFP10 using polyclonal anti-CFP10 antibody (AP03010PU-N): Lane 1, 3, 5: cell lysates of non-transfected *E. coli* (negative controls). Lane 2, 4, 6: cell lysate of CFP10-transfected *E. coli*; dilution (2) 0.5 $\mu\text{g/ml}$, (4) 0.2 $\mu\text{g/ml}$, (6) 0.1 $\mu\text{g/ml}$; detection with Donkey anti-rabbit/HRP secondary antibody.

