**RECOMBINANT ANTIGEN CFP10 from Mycobacterium tuberculosis**

**CATALOG NUMBER:** RAG0050

**RECOMBINANT ANTIGEN:** M. tuberculosis antigen CFP10 (Bekmurzayeva et al., 2013).

**DESCRIPTION:** the Mycobacterium tuberculosis gene for the 10 kDa culture filtrate antigen EsxB, has been expressed as a recombinant antigen fused to a his-tag in its N-terminus. It is produced from the complete ORF (aa 1-100) of the protein.

**Blast Analysis:** NP_218391.1, NP_338542.1

**Presentation:** liquid protein solution

**Source:** Escherichia coli

**Molecular Weight:** determined by SDS-PAGE, the protein band is between molecular markers of 25,000 and 18,400 Da, while relative molecular mass calculated from amino acid sequence is 17,506.0 Da.

**Batch Composition:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>his-CFP10</td>
<td>recombinant antigen with a his-tag in its N-terminus</td>
</tr>
<tr>
<td>Storage buffer</td>
<td>20 mM phosphate buffer pH 8, 10 mM NaCl, 0.1% polyoxyethylene (10) tridecyl ether and 250 mM imidazol</td>
</tr>
</tbody>
</table>

**Quality Control:**

1. Protein Concentration Determined Espectrophotometrically

DO_{280} = 0.585  
A_{0.1%} (=1 g/l) = 0.484  
CONCENTRATION*: 1.20 mg/ml

* The measurement of the protein concentration has been performed with the theoretical extinction coefficient of the recombinant protein obtained from Gill and vonHippel, 1989

2. Purity Control in SDS-PAGE: 17%

**Figure 1.** SDS-PAGE analysis (17%) of 3 µl of recombinant CFP10. Purity is >98% as determined by gel electrophoresis.

3. Absence of Precipitation After a Freezing and thawing cycle: ok

**Lot Specifications:**

1. Concentration: 1.20 mg/ml
2. Total quantity per aliquot: 1 mg
3. Total volume per aliquot (5% overfill): 0.874 ml

4. Storage: Protein is shipped with dry ice. Upon arrival, it should be aliquoted in order to avoid repeated freezing and thawing cycles and stored at -20ºC to -80ºC

5. Applications: Not tested. Where this product has not been tested for use in a particular technique, this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates.

6. Observations: proteins should be maintained frozen at high concentrations. The dilution to be performed for ELISA assays should be made with a small quantity of protein, the same day of the experiment. In order to defrost the protein, maintain the aliquot at 25ºC without shaking to avoid aggregation. Prior making test dilutions and after defrost the protein, is recommended to remove possible protein aggregates by centrifuging the stock solution, avoiding alterations in the immobilization of the biomolecule to the solid surface.

**Related Products:**

ESAT6

**Bibliography:**


Important Notes: During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.

Although recombinant antigens are expressed in non-pathogenic *E. coli* and bacterial integrity is destroyed during purification, the antigen preparation should be handled as potentially infectious.

**NOT FOR DIAGNOSTIC USE, FOR RESEARCH USE ONLY**