# Article information:

EST12 regulates Myc expression and enhances anti-mycobacterial inflammatory response via RACK1-JNK-AP1-Myc immune pathway - PMC  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9393728/>

# Article summary:

1. EST12, a secreted protein encoded by virulent M.tb H37Rv RD3, induces early expression and late degradation of the transcription factor, c-Myc (Myc).

2. EST12 activates JNK-AP1-Myc signaling pathway to promote the expression of pro-inflammatory cytokines (IL-6 and TNF-α)/inducible nitric oxide synthase (iNOS)/nitric oxide (NO) to increase clearance of M.tb in a RACK1 dependent manner.

3. Macrophages infected with EST12-deficiency strain (H37RvΔEST12) displayed less production of iNOS, IL-6 and TNF-α, suggesting that EST12 regulates anti-mycobacterial inflammatory response via RACK1-JNK-AP1-Myc immune pathway.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy as it provides evidence for its claims through experiments conducted on macrophages infected with different strains of M.tb. The authors have also provided detailed information about the mechanism by which EST12 regulates anti-mycobacterial inflammatory response via RACK1–JNK–AP1–Myc immune pathway. Furthermore, the article has been published in Front Immunol, a reputable journal in the field of immunology, which adds to its credibility.

However, there are some potential biases in the article that should be noted. Firstly, the authors have not discussed any possible risks associated with their findings or explored any counterarguments to their claims. Secondly, they have not presented both sides equally; instead they have focused mainly on how EST12 can enhance anti-mycobacterial inflammatory response without providing much information about other factors that may affect this process such as environmental conditions or other proteins involved in this pathway. Finally, there is no mention of any promotional content or partiality in the article which could be seen as a limitation since it would provide more insight into the trustworthiness and reliability of the article if these aspects were addressed.

# Topics for further research:

* Mycobacterium tuberculosis infection risks
* Environmental factors affecting anti-mycobacterial inflammatory response
* Proteins involved in RACK1–JNK–AP1–Myc immune pathway
* Potential side effects of EST12
* Promotional content in Front Immunol
* Partiality in scientific research.

# Report location:

<https://www.fullpicture.app/item/257cf519bd403419d9f60dfbc7638e9e>