www.neobiolab.com
info@neobiolab.com
888.754.5670, +1 617.500.7103 United States
0800.088.5164, +44 020.8123.1558 United Kingdom

ESAT6

Catalog #:PRPS-298

For research use only.

Description:ESAT-6 Recombinant produced in Baculovirus is a single, glycosylated, polypeptide chain containing 104 amino acids (1-95 a.a) having a total molecular mass of 11kDa.The ESAT-6 fused to a 9 amino acid His-tag & purified by proprietary chromatographic techniques.

Synonyms: Early Secretory Target Mycobacterium Tuberculosis, ESAT-6.

Source: Baculovirus.

Physical Appearance: Sterile filtered colorless solution.

Amino Acid Sequence:ADPMTEQQWN FAGIEAAASA IQGNVTSIHS LLDEGKQSLT KLAAAWGGSG SEAYQGVQQK WDATATELNN ALQNLARTIS EAGQAMASTE GNVTGMFAHH HHHH.

Purity: Greater than 90.0% as determined by SDS-PAGE.

Formulation:
ESAT-6 protein solution (0.5mg/ml) containing 20mM Tris-HCl buffer (pH 8.0) and 10% glycerol.

Stability:
Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles.

Usage:
NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. They may not be used as drµgs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:
Mycobacterium antigen ESAT-6 has been isolated from low molecular weight fractions of the shot-term-culture filtrate (ST-CF) and it can easily be detected in tuberculosis patients. The export of ESAT-6 which is a potent T-cell antigen, and related proteins requires a dedicated secretory apparatus that is encoded by a group of genes, several of which also code for proteins that are recognized strongly by T cells. The ESAT-6 systems can consequently be considered as immunogenicity islands and there is mounting evidence that the equivalent genes are subject to selective pressure imposed by the immune system of the host.This antigen includes many epitopes detectable in the serum of most patients with tuberculosis (more than 90%). By the attempts to obtain the vaccine on the basis of ESAT-6 it was demonstrated that the optimization of adjuvant is very important when using the combination of dioctadecylammonium bromide and monophosphoryllipide. Recently it was shown that ESAT-6 is very potential as diagnostic for differentiation between the mycobacterial infection and BCG vaccination. The main topic in ESAT-6 using is in antibody production and in test-systems for tuberculosis elaboration.

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