



High concentration
High purity
His-Tagged

Formulation on request

250 kDa
130 kDa
100 kDa
70 kDa
55 kDa
35 kDa
25 kDa
15 kDa
10 kDa



Analytical :

- 1 Western Blot/Dot Blot
 - 2 ELISA
 - 3 Lateral flow assay control
- Protocol available on request

ORDER

rTP15 in solution

* A192516-03 : 1mg/ml

**Other quantities and buffer
available on request**

Background

Syphilis is a sexually transmitted infection caused by the spirochete bacterium *Treponema pallidum*. The primary route of transmission is through sexual contact. Syphilis is thought to have infected 12 million additional people worldwide in 1999, with greater than 90% of cases in the developing world. Syphilis is difficult to diagnose clinically early in its presentation [1]. Confirmation is either via blood tests or direct visual inspection using microscopy. Blood tests are more commonly used, as they are easier to perform [2]. Several highly immunogenic lipoproteins have been identified as diagnostic targets throughout all stages of a syphilis infection, including Tp17, Tp15, Tp44.5 (TnpA), Tp47, Tp41 and Tp35 (TnpC). Specifically, early immune responses are against Tp47 and some of the flagellar proteins, followed by Tp15 and Tp17.

Product

Among the periplasmic lipoproteins, Tp15 is encoded by the *tpp15* gene, with a molecular weight of 15 kDa. Previous studies showed that Tp15 was a strong membrane immunogen, reacting intensely with human syphilitic sera [3]. Tp15, along with Tp17, Tp47, and other specific *T. pallidum* antigens, are used to diagnose syphilis [4], [5] and [6].

Technical data

This protein is recombinant Tp15 from *Treponema pallidum* expressed in *Escherichia coli*. It is purified by Immobilized metal ion affinity chromatography. The protein's theoretical size is 15Kda.

This protein is 6 His tagged.

Application

This product can be used by RDT manufacturers

Literature

- 1 Eccleston, K; Collins, L; Higgins, SP (March 2008). "Primary syphilis". International journal of STD & AIDS 19 (3): 145–51
- 2 Kent ME, Romanelli F (February 2008). "Reexamining syphilis: an update on epidemiology, clinical manifestations, and management". Annals of Pharmacotherapy 42 (2): 226–36
- 3 Aleksey Kubanov, Anastassia Runina, and Dmitry Deryabin Novel *Treponema pallidum* Recombinant Antigens for Syphilis Diagnostics: Current Status and Future Prospects Hindawi BioMed Research International Volume 2017, Article ID 1436080,
- 4 Q. Dang, J. Feng, X. Lu, X. Zhang, H. Xu, C. Liu, et al. Evaluation of specific antibodies for early diagnosis and management of syphilis. Int J Dermatol, 45 (10) (2006), pp. 1169–1171
- 5 L.R. Lin, M.L. Tong, Z.G. Fu, B. Dan, W.H. Zheng, C.G. Zhang, et al. Evaluation of a colloidal gold immunochromatography assay in the detection of *Treponema pallidum* specific IgM antibody in syphilis serofast reaction patients: a serologic marker for the relapse and infection of syphilis. Diagn Microbiol Infect Dis, 70 (1) (2011), pp. 10–16
- 6 V. Sambri, A. Marangoni, M.A. Simone, A. D'Antuono, M. Negosanti, R. Cevenini, et al. Evaluation of recomWell *Treponema*, a novel recombinant antigen-based enzyme-linked immunosorbent assay for the diagnosis of syphilis. Clin Microbiol Infect, 7 (4) (2001), pp. 200–205