

**High concentration****High purity****His-Tagged****Formulation on request****Analytical :**

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

**ORDER****rTP47 in solution**

\* A192516-02 : 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 (TmpA), Tp47, Tp41 and Tp35 (TmpC). Specifically, early immune responses are against Tp47 and some of the flagellar proteins, followed by Tp15 and Tp17.

**Product**

Among the periplasmic lipoproteins, Tp47 is encoded by the *tpp47* gene, with a molecular weight of 47 kDa. Previous studies identified the *T. pallidum* 47-kDa lipoprotein (Tp47) as a penicillin-binding protein (PBP) [3]. Tp47, along with Tp15, Tp17, and other specific *T. pallidum* antibodies, are used to diagnose syphilis [4], [5] and [6].

**Technical data**

This protein is recombinant Tp47 from *Treponema pallidum* expressed in *Escherichia coli*. It is purified by Immobilized metal ion affinity chromatography. The protein's theoretical size is 47Kda.

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
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- 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
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