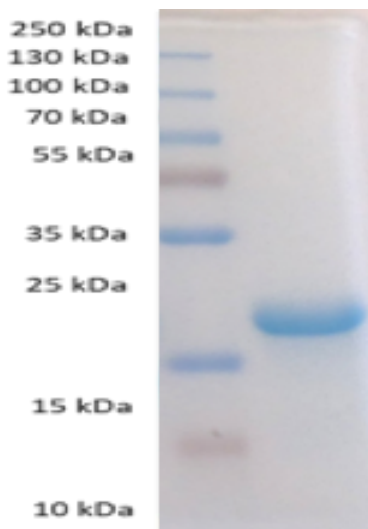


**High concentration**  
**High purity**  
**His-Tagged**  
**Formulation on request**



#### Analytical :

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

#### ORDER

##### rGP36 in solution

\* A080922-02 : 1mg/ml

**Other quantities and buffer  
 available on request**

## Background

The **human immunodeficiency virus (HIV)** is a lentivirus (a subgroup of retrovirus) that causes HIV infection and acquired immunodeficiency syndrome (AIDS)[1]. AIDS is a condition in humans in which progressive failure of the immune system allows life-threatening opportunistic infections and cancers to thrive. Infection with HIV occurs by the transfer of blood, semen, vaginal fluid, pre-ejaculate, or breast milk. HIV infects vital cells in the human immune system such as helper T cells (specifically CD4<sup>+</sup> T cells), macrophages, and dendritic cells [2]. Since its discovery, AIDS has caused an estimated 36 million deaths worldwide (as of 2012) [3]. In 2013 it resulted in about 1.34 million deaths [4]. As of 2012, approximately 35.3 million people are living with HIV globally [4].

## Product

The HIV-2 envelope proteins GP36 and GP125 are the main targets for neutralizing antibodies. Although the crystal structures of GP36 and GP125 have been determined yet, functional and structural studies suggest strong similarities to their HIV-1 homologues GP41 and GP120, respectively.

Envelope proteins assemble into surface spikes composed of trimers of non-covalent GP36-GP125 heterodimers, with GP36 traversing the viral membrane and anchoring the GP36-GP125 complex to the virus[5].

## Technical data

This protein is recombinant GP36 (spike protein) from HIV-2 virus expressed in *Escherichia coli*. It is purified by Immobilized metal ion affinity chromatography. The protein's theoretical size is 18Kda.

This protein is 6 His tagged.

## Application

This product can be used by RDT manufacturers.

## Literature

- 1 Weiss RA (May 1993). "How does HIV cause AIDS?". *Science* 260 (5112): 1273–9
- 2 Cunningham AL, Donaghy H, Harman AN, Kim M, Turville SG (2010). "Manipulation of dendritic cell function by viruses". *Current opinion in microbiology* 13 (4): 524–529.
- 3 "Fact Sheet". UNAIDS.org. 2013. Retrieved December 4, 2013
- 4 GBD 2013 Mortality and Causes of Death, Collaborators (17 December 2014). "Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013.". *Lancet* 385 (9963): 117–71
- 5 Hannes Uchtenhagen et al. Crystal Structure of the HIV-2 Neutralizing Fab Fragment7C8 with High Specificity to the V3 Region of gp125. *Plos One* April 2011 | Volume 6 | Issue 4 | e18767