Product Specification Sheet

Recombinant Brucella abortus protein

BP2615-R-10	Recombinant Brucella abortus BP26 protein (>95%, 6x his-tag)	Size: 10 ug

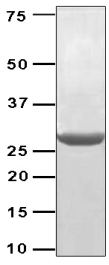
Brucella abortus is an intracellular gram negative rod shaped bacteria originally found in cattle populations. This bacterium is a blood borne pathogen that causes premature abortion of a cattle fetus. Brucella abortus is zoonotic, it can be transferred from an animal to a human host and still remain pathogenic. The average time of Brucella abortus in the excrement of cattle and the aborted fetuses of cattle is around 30 days. This intracellular bacterium can remain alive outside the host without replicating. Outside the host the bacteria cells are affected by direct sunlight; the pathogen can be eliminated by pasteurization, and can be killed by disinfectants. Brucella abortus is usually transmitted in animals by contact with the placenta, fetus, fetal fluids and vaginal discharges from infected animals.

Brucella abortus and other strains of Brucella cause a disease known as brucellosis, which usually affects cows, sheep, goats, pigs, and dogs. Brucellosis causes termination of a cow's pregnancy, due to reproductive complications. This disease used to be referred to as Malta fever in humans. The symptoms in humans include fever, chills, fatigue, headache, backache, weakness, and weight loss.

The Brucella abortus genome contains 2 circular DNA chromosomes. The first chromosome is 2,124,241 nucleotides long and codes for 2200 genes. The second chromosome is 1,162,204 nucleotides long and codes for 1156 genes. Within the coding region GC content is 57% and 81% of the genome is a coding region. The genome of Brucella abortus is very different and rare compared to a lot of other bacteria for it lacks any plasmids or genomic islands which are characteristic of pathogenic microbes. BP26 is a 26-kDa protein (BP26) isolated from a Brucella abortus S19 genome lambda gt11 library. This protein is in the periplasm of B. abortus and in transformed Escherichia coli. It is exported to the periplasm via a preprotein of 29 kDa with a signal sequence of 28 amino acids. The use of this protein in Western blotting allowed the differentiation between vaccinated bovines from infected bovines. BP26 might be of value as an antigen for serological diagnosis of brucellosis in different mammals.

Two Brucella abortus live vaccines, Strain 19 and RB51, are widely used to control this disease in endemic areas, or used as part of an eradication program.

Source of Antigen



Recombinant Brucella abortus BP26 protein was expressed in E.coli as a his-tag fusion protein (229 aa, >95%, ~25.9 kda). Purified protein is supplied in PBS, pH 7.4 (see lot sp. Conc. on the vial)

Endotoxin level : < 1.0 EU per µg protein as determined by the LAL method.

It is suitable for ELISA, Western or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

Storage
Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder.

Recommended Usage
ELISA, Western blot

Cellular Activity, Histochemistry & Immunofluorescence

Specificity:
Brucella abortus BP26 protein (229-aa, protein accession # Q44642) is 100% conserved in Brucella abortus and 99% conserved in Brucella inopinata and Brucella melitensis.

General References: Rossetti OL, Arese AI, Boschiroli ML, Cravero SL (1996) J. Clin. Microbiol. 34, 165-169; Crasta OR (2008) PLoS ONE 3, 193.

*This product is for In vitro research use only.

Related material available from ADI

Catalog# Prod Description

BP2611-C Recombinant(Brucella abortus) Purified BP26 protein control for western blot

BP2611-S Recombinant(Brucella abortus) Purified BP26 antiserum

BP2615-R-10 Recombinant Brucella abortus BP26 protein (>95%, 6x His tag)

RV-500400-01N Recombinant Brucella abortus IgG negative control serum

RV-500400-02P Recombinant Brucella abortus IgG positive control serum

RV-500400-1 Recombivirus Bovine/Cow Infectious Brucella abortus BP26 Protein IgG ELISA kit, 96 tests

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