SANTA CRUZ BIOTECHNOLOGY, INC.

# eqbJ (G-7): sc-390049

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

eqbJ, also known as ABC transporter ATP-binding protein, is a 458 amino acid protein of *Streptococcus equi* origin. Surface proteins of bacterial species are usually involved in interaction with host proteins, and potentially act as biomarkers for serodiagnosis and subunit vaccine components. *Streptococcus equi* subspecies *equi (S. equi)* is a clonal, equine host-adapted pathogen that causes strangles. Strangles is a highly prevalent, highly contagious disease characterized by tonsillitis and lymphadenitis of the head and neck. Some symptoms of strangles may include fever, depression, and submandibular and retropharyngeal lymph node enlargement that can lead to respiratory distress. The infection is transmitted by inhalation of *S. equi* or direct contact with mucopurulent discharge from an infected animal.

## REFERENCES


1. Guss, B., Flock, M., Frykberg, L., Waller, A.S., Robinson, C., Smith, K.C. and Flock, J.I. 2009. Getting to grips with strangles: an effective multicomponent recombinant vaccine for the protection of horses from *Streptococcus equi* infection. PLoS Pathog. 5: e1000584.
2. Boyle, A. 2011. *Streptococcus equi* subspecies *equi* infection (strangles) in horses. Compend. Contin. Educ. Vet. 33: E1-E8.
3. Ivens, P.A., Matthews, D., Webb, K., Newton, J.R., Steward, K., Waller, A.S., Robinson, C. and Slater, J.D. 2011. Molecular characterisation of "strangles" outbreaks in the UK: the use of M-protein typing of *Streptococcus equi* ssp. *equi*. Equine Vet. J. 43: 359-364.
4. Waller, A.S., Paillot, R. and Timoney, J.F. 2011. *Streptococcus equi:* a pathogen restricted to one host. J. Med. Microbiol. 60: 1231-1240.
5. Mérant, C., Sheoran, A. and Timoney, J.F. 2011. Association of *Streptococcus equi* with equine monocytes. Vet. Immunol. Immunopathol. 143: 83-86.
6. Rodrigues, M.A., Figueiredo, L., Padrela, L., Cadete, A., Tiago, J., Matos, H.A., Azevedo, E.G., Florindo, H.F., Goncalves, L.M. and Almeida, A.J. 2012. Development of a novel mucosal vaccine against strangles by supercritical enhanced atomization spray-drying of *Streptococcus equi* extracts and evaluation in a mouse model. Eur. J. Pharm. Biopharm. 82: 392-400.
7. Webb, K., Barker, C., Harrison, T., Heather, Z., Steward, K.F., Robinson, C., Newton, J.R. and Waller, A.S. 2012. Detection of *Streptococcus equi* subspecies *equi* using a triplex qPCR assay. Vet. J. 195: 300-304.


## SOURCE

eqbJ (G-7) is a mouse monoclonal antibody raised against amino acids 226-458 of *Streptococcus equi* subsp. *equi* origin.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

## PRODUCT

Each vial contains 200 µg $IgG_{2a}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

eqbJ (G-7) is available conjugated to agarose (sc-390049 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390049 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390049 PE), fluorescein (sc-390049 FITC), Alexa Fluor® 488 (sc-390049 AF488), Alexa Fluor® 546 (sc-390049 AF546), Alexa Fluor® 594 (sc-390049 AF594) or Alexa Fluor® 647 (sc-390049 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390049 AF680) or Alexa Fluor® 790 (sc-390049 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

eqbJ (G-7) is recommended for detection of eqbJ of *S. equi* origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

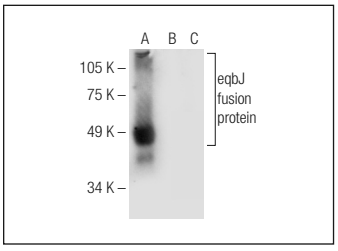
Molecular Weight of eqbJ: 58 kDa.

Positive Controls: *Streptococcus equi* whole cell lysate.

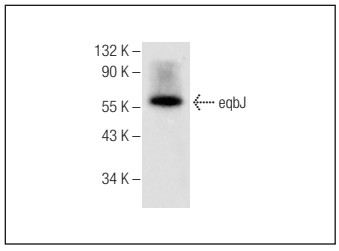
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA




eqbJ (G-7): sc-390049. Western blot analysis of *Streptococcus equi* recombinant eqbJ (226-458) (**A**), eqbJ (1-225) (**B**) and EAG (1-429) (**C**) fusion proteins.




eqbJ (G-7): sc-390049. Western blot analysis of eqbJ expression in *Streptococcus equi* whole cell lysate.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.