

Mouse LEISHMANIA LPG Monoclonal Antibody

MOUSE ANTI LEISHMANIA LPG (REPEAT EPITOPE)

CATALOG # AAA49012	HOST Mouse	APPLICATIONS Immunofluorescence, Immunoblot, Western Blot, ELISA
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PRODUCT SYNONYMS

LEISHMANIA LPG; Monoclonal Antibody; MOUSE ANTI LEISHMANIA LPG (REPEAT EPITOPE); anti-LEISHMANIA LPG antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Clonality	Monoclonal
Isotype	IgM
Clone Number	CA7AE
Specificity	Mouse anti Leishmania lipophosphoglycan antibody, clone CA7AE recognizes lipophosphoglycan (LPG) the major cell surface glycoconjugate of Leishmania parasites. Mouse.
Form/Format	Ascites
Applicable Applications for anti-LEISHMANIA LPG antibody	IF (Immunofluorescence), IB (Immunoblot), ELISA
Reconstitution	Reconstitute with 0.5 ml distilled water. Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. AAA Biotech recommends that the vial is gently mixed after reconstitution. For long term storage the addition of 0.09% sodium azide is recommended.
Immunogen	Heat killed Leishmania donovani promastigotes.
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the murine SP2/0 myeloma cell line.
Target Species	Protozoan
Preservative stabilizers	None Present
Preparation and Storage	Prior to reconstitution store at 4 degree C. After reconstitution store at -20 degree C. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Shelf Life: 12 months from date of reconstitution.



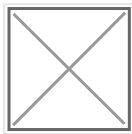
Application Data

Published investigator image: Recruitment of Syt V is impaired on phagosomes containing LPG-coated Zymosan. A and B, BMM were allowed to internalize Zym or LPG-Zym during 15 min (A) or 2 h (B), and prepared for confocal analysis. Presence (left y axis) and P/C ratio levels (right y axis) were determined for EEA1 (A) or LAMP-1 (B). C and D, BMM cells were allowed to internalize Zym or LPG-Zym for 10 min, 30 min or 2 h, fixed and stained for either endogenous Syt V (green) and LPG (red). The presence of Syt V and LPG on phagosomes is illustrated by confocal images (C). D. Quantification of Syt V recruitment (left panel) and relative Syt V levels (P/C ratio) on these phagosomes (right panel) were determined. E. Syt V-GFP cells were allowed to internalize Zym or LPG-Zym for 10 min, 30 min or 2 h, fixed and stained for LPG. Quantification of Syt V- recruitment (left panel) and relative Syt V levels on these phagosomes (right panel) were determined. The recruitment of EEA1, LAMP1 and Syt V was determined on at least 100 phagosomes for each condition, at least three independent experiments were performed and the bars show the standard deviations of one representative triplicate (*, p=0.05; **, p=0.005). Bar, 3 um.From: Vinet AF, Fukuda M, Turco SJ, Descoteaux A (2009) The Leishmania donovani Lipophosphoglycan Excludes the Vesicular Proton-ATPase from Phagosomes by Impairing the Recruitment of Synaptotagmin V. PLoS Pathog 5(10): e1000628.



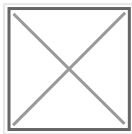
Application Data

Published investigator image: CsA-treated L. donovani promastigotes show altered morphology. Promastigotes were incubated with 0.15% ethanol or 15 uM (B, C) or 20 uM (A) CsA at 26 degree C, pH 7.4 for 72 hours. Axenic amastigotes were prepared as described in experimental procedure. 107 cells were fixed with either methanol for Giemsa staining (A), or 2.5% glutaraldehyde for scanning electron microscopy (B). The bar corresponds to 1 um (B) and 5 um (A). Two independent experiments were performed and representative fields are shown. (C) Flagellum length measurement. CsA-treated and solvent treated cells L. donovani promastigotes were fixed in methanol and stained with anti-tubulin monoclonal antibody. Flagellum length was measured from a total of 180 cells each for control and CsA-treated samples. Only cells with a single flagellum that was completely visible and fully in focus were taken into account. Samples were observed with a DMR Leica microscope and images were captured with a Cool Snap HQ camera (Roper Scientific). Images were analysed using the IPLab Spectrum 3.9 software (Scanalytics & BD Biosciences) and flagellum length was measured using ImageJ (NIH). (D) Immunoblot analysis of CsA treated parasites. Parasites were treated with solvent or 15 uM CsA for 72 hours, lysed in 1x Laemmli buffer, and lysates equal to 2x107 cells were analyzed by immunoblotting. Promastigote specific marker LPG (upper), amastigote specific marker A2 (middle) and a-tubulin (lower) were analyzed. Two independent experiments which gave identical results were performed.From: Yau W-L, Blisnick T, Taly J-F, Helmer-Citterich M, Schiene-Fischer C, et al. (2010) Cyclosporin A Treatment of Leishmania donovani Reveals Stage-Specific Functions of Cyclophilins in Parasite Proliferation and Viability. PLoS Negl Trop Dis 4(6): e729.



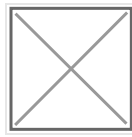
Application Data

Published investigator image: Recruitment of Syt V to GM1-containing microdomains of phagosome membranes is prevented by LPG.A, BMM were allowed to internalize Zym for 30 min, fixed and stained for endogenous Syt V (green) and GM1 (red). White arrowheads indicate examples of colocalization between Syt V and GM1-positive microdomains, indicating a Syt V enrichment on these microdomains. B and C, BMM were either left untreated or treated with 10 mmol/L MbetaCD for 1 h before the internalization of Zym for 30 and 120 min. Cells were then fixed and stained for Syt V and LAMP-1. Representative confocal images of Syt V recruitment on cells with or without MbetaCD treatment is presented (B), white arrowheads indicate phagosomes. Syt V acquisition is expressed as a percentage of phagosome recruitment for Syt V. At least 100 phagosomes for each condition were assessed. Three independent experiments were performed and the bars show the standard deviations of one representative triplicate (C) (**, p=0.005). D, BMM were allowed to internalize Zym-LPG for 30 min, fixed and stained for LPG (green) and GM1 (red). White arrowheads indicate a colocalization between LPG and GM1-positive rafts. BMM were allowed to internalize Zym (E, upper panel) or LPG-Zym (E, lower panel) for 30 min, fixed and stained for Syt V (blue), LPG (green) and GM1 (red). Blue arrowheads indicate a local Syt V acquisition on phagosome membrane and yellow arrowheads indicate a local colocalization between GM1 microdomains and LPG. A rim around each phagosome was manually traced with a one pixel width and fluorescence intensity profile of Syt V in blue, LPG in green and GM1 in red were represented in a graph (F). Bars, 3 um (A, B and D) or 1 um (E).From: Vinet AF, Fukuda M, Turco SJ, Descoteaux A (2009) The Leishmania donovani Lipophosphoglycan Excludes the Vesicular Proton-ATPase from Phagosomes by Impairing the Recruitment of Synaptotagmin V. PLoS Pathog 5(10): e1000628.



Application Data

Published investigator image: Exclusion of Syt V is restricted to the LPG insertion sites on the phagosome membrane. A and B, BMM were allowed to internalize Zym or Zym-LPG during 30 min or 2 h, and stained for Syt V (green) and LPG (red). Green arrowheads indicate a localized Syt V recruitment on phagosome membrane and red arrowheads indicate a localized LPG insertion into phagosome membrane (A). C and D, Syt V-GFP cells were allowed to internalize Zym or Zym-LPG for 30 min or 2 h, fixed and stained for LPG (red). Green arrowheads indicate a localized Syt V-GFP recruitment on phagosome membrane and red arrowheads indicate a localized LPG insertion into phagosome membrane (C). A rim around a representative phagosome formed in BMM (B) or in SytV-GFP cells (D) from A and C respectively, was manually traced with a one pixel width and fluorescence intensity profile of Syt V in green and LPG in red were represented in a graph for each phagocytosis time point. Bar, 3 um.From: Vinet AF, Fukuda M, Turco SJ, Descoteaux A (2009) The Leishmania donovani Lipophosphoglycan Excludes the Vesicular Proton-ATPase from Phagosomes by Impairing the Recruitment of Synaptotagmin V. PLoS Pathog 5(10): e1000628.



Application Data

Published investigator image: The inhibition of the V-ATPase acquisition on phagosomes is specific for the promastigote stage. A-C, BMM cells were infected with either WT promastigotes or amastigotes for 2 h and 24 h, fixed and stained for V-ATPase (green), LPG (red) and DNA (blue) (A) or V-ATPase (green), LAMP-1 (red) and DNA (blue) (B). A and B, Confocal images illustrating V-ATPase acquisition on parasite-containing phagosomes (white arrowheads). C, V-ATPase acquisition was determined on at least 100 phagosomes for each condition and expressed as a percentage of recruitment. Three independent experiments were performed and the bars show the standard deviations of one representative triplicate (**, $p=0.005$; p values compare the acquisition of V-ATPase on phagosomes containing promastigotes vs amastigotes parasites). Bar, 3 μ m. From: Vinet AF, Fukuda M, Turco SJ, Descoteaux A (2009) The Leishmania donovani Lipophosphoglycan Excludes the Vesicular Proton-ATPase from Phagosomes by Impairing the Recruitment of Synaptotagmin V. PLoS Pathog 5(10): e1000628.

ADDITIONAL INFORMATION

Related Product Information for anti-LEISHMANIA LPG antibody

Mouse anti Leishmania lipophosphoglycan antibody, clone CA7AE recognizes lipophosphoglycan (LPG) the major cell surface glycoconjugate of Leishmania parasites. Mouse anti Leishmania lipophosphoglycan antibody, clone CA7AE recognizes the repeat carbohydrate epitope of most species of Leishmania LPG. The epitope is also found on the excreted acid phosphatase of Leishmania and is expressed on the surface of Leishmania infected macrophages (Tolson et al. 1990).

Mouse anti Leishmania lipophosphoglycan antibody, clone CA7AE recognizes the promastigotes of Leishmania donovani but not those of the related species L. tropica (Jaffe and Sarfstein 1987, Sundar et al. 2001). Mouse anti Leishmania lipophosphoglycan antibody, clone CA7AE does however recognize a broad range of L. donovani and L. major strains and related species including L. infantum, L. m. mexicana, L. aethiopica and L. b. panamensis (Tolson et al. 1994).

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/leishmania-lpg-antibody-clone-ca7ae-immunofluorescence-immunoblot-elisa/49012>