

Rabbit anti-Human, Rat BDH1 Polyclonal Antibody | anti-BDH1 antibody

Anti-BDH1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19328	Rabbit	Human, Rat	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

BDH1; Polyclonal Antibody; Anti-BDH1 Antibody; BDH; SDR9C1; D-beta-hydroxybutyrate dehydrogenase; mitochondrial; EC 1. 1. 1. 30; 3-hydroxybutyrate dehydrogenase; Short chain dehydrogenase/reductase family 9C member 1; 3-hydroxybutyrate dehydrogenase 1; anti-BDH1 antibody

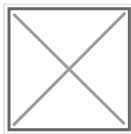
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for BDH1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-BDH1 antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.25-0.5ug/ml Human, Rat IHC-P: 2-5ug/ml Human ICC/IF: 5ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human BDH1 recombinant protein (Position: M1-Y287).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of U937 cells using anti-BDH1 antibody (AAA19328). Overlay histogram showing U937 cells stained with AAA19328 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-BDH1 Antibody (AAA19328, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



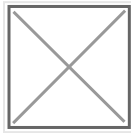
IF (Immunofluorescence)

Figure 5. IF analysis of BDH1 using anti-BDH1 antibody (AAA19328). BDH1 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5µg/mL rabbit anti-BDH1 Antibody (AAA19328) overnight at 4 degree C. DyLight®550 Conjugated Goat Anti-Rabbit IgG (BA1135) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 4. IHC analysis of BDH1 using anti-BDH1 antibody (AAA19328). BDH1 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/mL rabbit anti-BDH1 Antibody (AAA19328) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of BDH1 using anti-BDH1 antibody (AAA19328). BDH1 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/mL rabbit anti-BDH1 Antibody (AAA19328) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of BDH1 using anti-BDH1 antibody (AAA19328). BDH1 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/mL rabbit anti-BDH1 Antibody (AAA19328) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of BDH1 using anti-BDH1 antibody (AAA19328). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50µg of sample under reducing conditions. Lane 1: rat liver tissue lysates Lane 2: human COLO320 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-BDH1 antigen affinity purified polyclonal antibody (Catalog # AAA19328) at 0. 5 µg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # with Tanon 5200 system. A specific band was detected for BDH1 at approximately 31KD. The expected band size for BDH1 is at 38KD.

ADDITIONAL INFORMATION

Related Product Information for anti-BDH1 antibody	D-beta-hydroxybutyrate dehydrogenase, mitochondrial is an enzyme that in humans is encoded by the BDH1 gene. This gene encodes a member of the short-chain dehydrogenase/reductase gene family. The encoded protein forms a homotetrameric lipid-requiring enzyme of the mitochondrial membrane and has a specific requirement for phosphatidylcholine for optimal enzymatic activity. The encoded protein catalyzes the interconversion of acetoacetate and (R)-3-hydroxybutyrate, the two major ketone bodies produced during fatty acid catabolism. Alternatively spliced transcript variants encoding the same protein have been described.
References	1. Marks, A. R., McIntyre, J. O., Duncan, T. M., Erdjument-Bromage, H., Tempst, P., Fleischer, S. Molecular cloning and characterization of (R)-3-hydroxybutyrate dehydrogenase from human heart. J. Biol. Chem. 267: 15459-15463, 1992. 2. Persson, B., Kallberg, Y., Bray, J. E., Bruford, E., Dellaporta, S. L., Favia, A. D., Duarte, R. G., Jornvall, H., Kavanagh, K. L., Kedishvili, N., Kisiela, M., Maser, E., Mindnich, R., Orchard, S., Penning, T. M., Thornton, J. M., Adamski, J., Oppermann, U. The SDR (short-chain dehydrogenase/reductase and related enzymes) nomenclature initiative. Chem. Biol. Interact. 178: 94-98, 2009.

NCBI AND UNIPROT INFORMATION

NCBI GI #	25108876
NCBI GeneID	622
UniProt Accession #	Q02338; Q96ET1; Q9BRZ4; D3DXC0
Molecular Weight	343
NCBI Official Full Name	D-beta-hydroxybutyrate dehydrogenase, mitochondrial
NCBI Official Synonym Full Names	3-hydroxybutyrate dehydrogenase, type 1
NCBI Official Symbol	BDH1
NCBI Official Synonym Symbols	BDH; SDR9C1
NCBI Protein Information	D-beta-hydroxybutyrate dehydrogenase, mitochondrial; (R)-3-hydroxybutyrate dehydrogenase; 3-hydroxybutyrate dehydrogenase (heart, mitochondrial); short chain dehydrogenase/reductase family 9C, member 1
UniProt Protein Name	D-beta-hydroxybutyrate dehydrogenase, mitochondrial
UniProt Gene Name	BDH1
UniProt Synonym Gene Names	BDH; BDH
UniProt Entry Name	BDH_HUMAN

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/polyclonal/bdh1-antibody-western-blot-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-direct-elisa-elisa/19328>