

Rabbit DBT Polyclonal Antibody | anti-DBT antibody

Anti-DBT Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA128210	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunoprecipitation, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

DBT; Polyclonal Antibody; Anti-DBT Antibody Picoband; Lipoamide acyltransferase component of branched-chain alpha-keto acid dehydrogenase complex; mitochondrial; dihydrolipoamide branched chain transacylase E2; BCATE2; EC 2.3.1.168; 52 kDa mitochondrial autoantigen of primary biliary cirrhosis; Branched chain 2-oxo-acid dehydrogenase complex component E2; BCOADC-E2; Branched-chain alpha-keto acid dehydrogenase complex component E2; BCKAD-E2; BCKADE2; Dihydrolipoamide acetyltransferase component of branched-chain alpha-keto acid dehydrogenase complex; Dihydrolipoamide branched chain transacylase; Dihydrolipoyllysine-residue; 2-methylpropanoyltransferase; anti-DBT antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-DBT antibody	ELISA, FCM/FACS (Flow Cytometry), IP (Immunoprecipitation), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E coli-derived human DBT recombinant protein (Position: K46-R462). Human DBT shares 89.7% amino acid (aa) sequence identity with mouse DBT.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Cross Reactivity	No cross-reactivity with other proteins
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of SiHa cells using anti-DBT antibody (AAA128210). Overlay histogram showing SiHa cells stained with AAA128210 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-DBT Antibody (AAA128210, 1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IP (Immunoprecipitation)

Figure 3. Immunoprecipitating DBT in A431 whole cell lysate. Western blot analysis of DBT using anti-DBT antibody (AAA128210). Lane 1: A431 whole cell lysates (30ug), Lane 2: Rabbit control IgG instead of anti-DBT antibody in A431 whole cell lysate, Lane 3: anti-DBT antibody (2ug) + A431 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-DBT antigen affinity purified polyclonal antibody (AAA128210) at a dilution of 0.5ug/mL and probed with a mouse anti-rabbit IgG-HRP secondary antibody (Light Chain). The signal is developed using ECL Plus Western Blotting Substrate. A specific band was detected for DBT at approximately 53 kDa. The expected band size for DBT is at 53 kDa.



IF (Immunofluorescence)

Figure 2. IF analysis of DBT using anti-DBT antibody (AAA128210) and anti-Beta Tubulin antibody (M01857-3). DBT was detected in an immunocytochemical section of U2OS 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 5ug/mL rabbit anti-DBT Antibody (AAA128210) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG and DyLight®550 Conjugated Goat Anti-Mouse IgG (BA1133) were used as secondary antibody at 1:500 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.



WB (Western Blot)

Figure 1. Western blot analysis of DBT using anti-DBT antibody (AAA128210). 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 30 ug of sample under reducing conditions. Lane 1: human SiHa whole cell lysates, Lane 2: human A431 whole cell lysates, Lane 3: human Hacat whole cell lysates, Lane 4: human Jurkat whole cell lysates, Lane 5: rat stomach tissue lysates, Lane 6: rat kidney tissue lysates, Lane 7: mouse stomach tissue lysates, Lane 8: mouse kidney tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-DBT antigen affinity purified polyclonal antibody (AAA128210) at 0.5ug/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 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for DBT at approximately 53 kDa. The expected band size for DBT is at 53 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-DBT antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-DBT antibody	Primary Antibodies
References	1. Bogenhagen, D. F., Rousseau, D., Burke, S. The layered structure of human mitochondrial DNA nucleoids. J. Biol. Chem. 283: 3665-3675, 2008. 2. Chi, C.-S., Tsai, C.-R., Chen, L.-H., Lee, H.-F., Mak, B. S.-C., Yang, S.-H., Wang, T.-Y., Shu, S.-G., Chen, C.-H. Maple syrup urine disease in the Austronesian aboriginal tribe Paiwan of Taiwan: a novel DBT (E2) gene 4.7 kb founder deletion caused by a nonhomologous recombination between LINE-1 and Alu and the carrier-frequency determination. Europ. J. Hum. Genet. 11: 931-936, 2003. 3. Chuang, D. T., Fisher, C. W., Lau, K. S., Griffin, T. A., Wynn, R. M., Cox, R. P. Maple syrup urine disease: domain structure, mutations and exon skipping in the dihydrolipoyl transacylase (E2) component of the branched-chain alpha-keto acid dehydrogenase complex. Molec. Biol. Med. 8: 49-63, 1991.

NCBI AND UNIPROT INFORMATION

NCBI GI #	400668
NCBI GeneID	1629
UniProt Accession #	P11182; Q5VVL8; B2R811
Molecular Weight	482
NCBI Official Full Name	Lipoamide acyltransferase component of branched-chain alpha-keto acid dehydrogenase complex, mitochondrial
NCBI Official Synonym Full Names	dihydrolipoamide branched chain transacylase E2
NCBI Official Symbol	DBT
NCBI Official Synonym Symbols	E2; E2B; BCATE2; BCKADE2; BCKAD-E2
NCBI Protein Information	lipoamide acyltransferase component of branched-chain alpha-keto acid dehydrogenase complex, mitochondrial; BCKAD E2 subunit; dihydrolipoyl transacylase; branched chain acyltransferase, E2 component; dihydrolipoyllsine-residue (2-methylpropanoyl)transfer
UniProt Protein Name	Lipoamide acyltransferase component of branched-chain alpha-keto acid dehydrogenase complex, mitochondrial
UniProt Gene Name	DBT
UniProt Entry Name	ODB2_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/dbt-antibody-flow-cytometry-immunoprecipitation-immunofluorescence-immunocytochemistry-western-blot-elisa/128210>