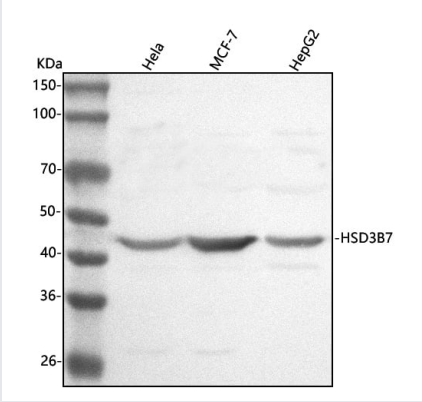
# HSD3B7 Antibody – Rabbit Polyclonal

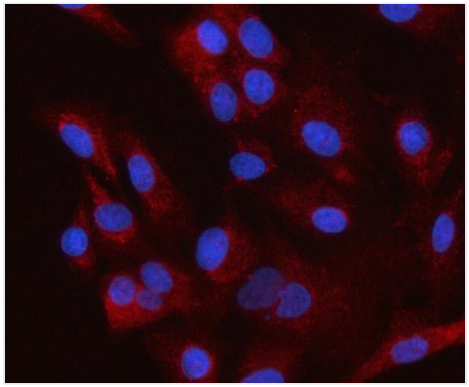
## PRODUCT OVERVIEW

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| **Product Name** | HSD3B7, Polyclonal Antibody |
| **Full Product Name** | Anti-HSD3B7 Antibody Picoband |
| **Product Gene Name** | anti-HSD3B7 antibody |
| **Product Synonym Names** | Serine/threonine-protein kinase AtPK1/AtPK6; 70 kDa ribosomal protein S6 kinase 1 antibody, KS6B1_HUMAN antibody, p70 alpha antibody, P70 beta 1 antibody, p70 ribosomal S6 kinase alpha antibody, p70 ribosomal S6 kinase beta 1 antibody, p70 S6 kinase alpha antibody, P70 S6 Kinase antibody, p70 S6 kinase alpha 1 antibody, p70 S6 kinase alpha 2 antibody, p70 S6K antibody, p70 S6K-alpha antibody, p70 S6KA antibody, p70(S6K) alpha antibody, p70(S6K)-alpha antibody, p70-alpha antibody, p70-S6K 1 antibody, p70-S6K antibody, P70S6K antibody, P70S6K1 antibody, p70S6Kb antibody, PS6K antibody, Ribosomal protein S6 kinase 70kDa polypeptide 1 antibody, Ribosomal protein S6 kinase beta 1 antibody, Ribosomal protein S6 kinase beta-1 antibody, Ribosomal protein S6 kinase I antibody, RPS6KB1 antibody, S6K antibody, S6K-beta-1 antibody, S6K1 antibody, Serine/threonine kinase 14 alpha antibody, Serine/threonine-protein kinase 14A antibody, STK14A antibody |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| **Purity/Purification** | Immunogen affinity purified. |
| **Specificity** | Expressed in all tissues. |
| **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. |
| **Molecular Weight** | 41,016 Da |
| **Chromosome Location** | Chromosome: 16; NC_000016.9 (30996519..31000473). Location: 16p11.2 |
| **OMIM** | 607764 |
| **3D Structure** | ModBase 3D Structure for Q9H2F3 |
| **Immunogen** | E coli-derived human HSD3B7 recombinant protein (Position: E23-A363). Human HSD3B7 shares 87.7% amino acid (aa) sequence identity with mouse HSD3B7. |
| **Subcellular Localization** | Cytoplasm, Nucleus |
| **Reconstitution** | Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml. |
| **Cross Reactivity** | No cross reactivity with other proteins. |
| **Protein Function** | Downstream effector of TOR signaling pathway involved in osmotic stress response. Could be involved in the control of plant growth and development. Phosphorylates the ribosomal proteins P14, P16 and S6. Functions as a repressor of cell proliferation and required for maintenance of chromosome stability and ploidy levels through the RBR1-E2F pathway. |
| **Product Categories/Family for anti-HSD3B7 antibody** | Primary Antibodies; Signal Transduction; Signaling Pathway; Small G Proteins |
| **ISO Certification** | Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory. |

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| **Applications Tested/Suitable for anti-HSD3B7 antibody** | Western Blot (WB), Immunocytochemistry (ICC), Immunofluorescence (IF), ELISA (EIA) |
| **Application Notes for anti-HSD3B7 antibody** | WB: 0.25-0.5ug/ml, Human<br>ICC/IF: 5ug/ml, Human<br>ELISA: 0.1-0.5ug/ml |
| **Related Product Information for anti-HSD3B7 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 References and Citations for anti-HSD3B7 antibody** | 1. Cheng, J. B., Jacquemin, E., Gerhardt, M., Nazer, H., Cresteil, D., Heubi, J. E., Setchell, K. D. R., Russell, D. W. Molecular genetics of 3-beta-hydroxy-D5-C27-steroid oxidoreductase deficiency in 16 patients with loss of bile acid synthesis and liver disease. J. Clin. Endocr. Metab. 88: 1833-1841, 2003.2. Clayton, P. T., Leonard, J. V., Lawson, A. M., Setchell, K. D. R., Andersson, S., Egestad, B., Sjovall, J. Familial giant cell hepatitis associated with synthesis of 3-beta,7-alpha-dihydroxy- and 3-beta,7-alpha,12-alpha-trihydroxy-5-cholenoic acids. J. Clin. Invest. 79: 1031-1038, 1987.3. Schwarz, M., Wright, A. C., Davis, D. L., Nazer, H., Bjorkhem, I., Russell, D. W. The bile acid synthetic gene 3-beta-hydroxy-delta-5-C27-steroid oxidoreductase is mutated in progressive intrahepatic cholestasis. J. Clin. Invest. 106: 1175-1184, 2000. |
| **Other Notes** | Small volumes of anti-HSD3B7 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for HSD3B7 purchase** | MBS1759080 is an antibody targeting HSD3B7. Also known as Anti-HSD3B7 Antibody Picoband. Reactive in Human. Host: Rabbit. |




**Western Blot (WB) of anti-HSD3B7 antibody**
Figure 1. Western blot analysis of HSD3B7 using anti-HSD3B7 antibody (MBS1759080).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 Hela whole cell lysates,Lane 2: human MCF-7 whole cell lysates,Lane 3: human HepG2 whole cell 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-HSD3B7 antigen affinity purified polyclonal antibody (#MBS1759080) 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 (#MBS176460) with Tanon 5200 system. A specific band was detected for HSD3B7 at approximately 45 kDa. The expected band size for HSD3B7 is at 41 kDa.



**Immunofluorescence (IF) of anti-HSD3B7 antibody**
Figure 2. IF analysis of HSD3B7 using anti-HSD3B7 antibody (MBS1759080).HSD3B7 was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (#MBS176582) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-HSD3B7 Antibody (MBS1759080) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was 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.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HSD3B7. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 218563684 |
| **NCBI GeneID** | 80270 |
| **NCBI Accession #** | NP_001136249.1 |

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| **UniProt Primary Accession #** | Q9H2F3 |
| **UniProt Secondary Accession #** | Q96M28; Q9BSN9 |
| **UniProt Related Accession #** | Q9H2F3 |
| **GenBank Nucleotide #** | NM_001142777.1 |
| **NCBI Official Full Name** | 3 beta-hydroxysteroid dehydrogenase type 7 isoform b |
| **NCBI Official Synonym Full Names** | hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase 7 |
| **NCBI Official Symbol** | HSD3B7 |
| **NCBI Official Synonym Symbols** | CBAS1; PFIC4; SDR11E3 |
| **UniProt Protein Name** | 3 beta-hydroxysteroid dehydrogenase type 7 |
| **UniProt Synonym Protein Names** | 3 beta-hydroxysteroid dehydrogenase type VII; 3-beta-HSD VII; 3-beta-hydroxy-Delta(5)-C27 steroid oxidoreductase (EC:1.1.1.-); C(27) 3-beta-HSD; Cholest-5-ene-3-beta,7-alpha-diol 3-beta-dehydrogenase (EC:1.1.1.181) |
| **Protein Family** | 3 beta-hydroxysteroid dehydrogenase |
| **UniProt Gene Name** | HSD3B7 |
| **UniProt Synonym Gene Names** | 3-beta-HSD VII; C(27) 3-beta-HSD |
| **UniProt Entry Name** | 3BHS7_HUMAN |
| **NCBI Protein Information** | 3 beta-hydroxysteroid dehydrogenase type 7; 3-beta-HSD VII; C(27)-3BETA-HSD; c(27) 3-beta-HSD; 3 beta-hydroxysteroid dehydrogenase type VII; 3 beta-hydroxy-delta 5-C27-steroid oxidoreductase; 3-beta-hydroxy-Delta(5)-C27 steroid oxidoreductase; cholest-5-e |
| **NCBI Summary for HSD3B7** | This gene encodes an enzyme which is involved in the initial stages of the synthesis of bile acids from cholesterol and a member of the short-chain dehydrogenase/reductase superfamily. The encoded protein is a membrane-associated endoplasmic reticulum protein which is active against 7-alpha hydrosylated sterol substrates. Mutations in this gene are associated with a congenital bile acid synthesis defect which leads to neonatal cholestasis, a form of progressive liver disease. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2008] |
| **UniProt Comments for HSD3B7** | HSD3B7: The 3-beta-HSD enzymatic system plays a crucial role in the biosynthesis of all classes of hormonal steroids. HSD VII is active against four 7-alpha-hydroxylated sterols. Does not metabolize several different C(19/21) steroids as substrates. Involved in bile acid synthesis. Defects in HSD3B7 are the cause of congenital bile acid synthesis defect type 1 (CBAS1); also known as neonatal progressive intrahepatic cholestasis. CBAS1 is due to a primary defect in bile synthesis leading to progressive liver disease. Clinical features include neonatal jaundice, severe intrahepatic cholestasis and cirrhosis. Belongs to the 3-beta-HSD family. 2 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: EC 1.1.1.181; Membrane protein, multi-pass; Lipid Metabolism - primary bile acid biosynthesis; Oxidoreductase; Membrane protein, integral<br><br>Chromosomal Location of Human Ortholog: 16p11.2<br><br>Cellular Component: endoplasmic reticulum membrane; integral to membrane<br><br>Molecular Function: cholest-5-ene-3-beta,7-alpha-diol 3-beta-dehydrogenase activity; 3-beta-hydroxy-delta5-steroid dehydrogenase activity<br><br>Biological Process: bile acid biosynthetic process; bile acid metabolic process<br><br>Disease: Bile Acid Synthesis Defect, Congenital, 1 |
| **Research Articles on HSD3B7** | **1.** Homozygosity mapping identifies a bile acid biosynthetic defect (3beta-HSD deficiency due to a frameshift mutation in HSD3B7) in an adult with cirrhosis of unknown etiology. |

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