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Anti-SOX5 Picoband Antibody
Catalog # ABO12195

Specification

Anti-SOX5 Picoband Antibody - Product Information

Application	**WB**
Primary Accession	P35711
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat, Pig**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Transcription factor SOX-5(SOX5) detection. Tested with WB in Human;Mouse;Rat;Pig.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SOX5 Picoband Antibody - Additional Information

Gene ID 6660

Other Names
Transcription factor SOX-5, SOX5

Calculated MW
84026 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat, Pig

Subcellular Localization
Nucleus .

Protein Name
Transcription factor SOX-5

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human SOX5 (495-528aa EKEKTTLESLTQQLAVKQNEEGKFSHAMMDFNLS), different from the related mouse sequence by two amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Contains 1 HMG box DNA-binding domain.

Anti-SOX5 Picoband Antibody - Protein Information

Name SOX5 {ECO:0000303|PubMed:12406576, ECO:0000312|HGNC:HGNC:11201}

Function
Transcription factor involved in chondrocytes differentiation and cartilage formation. Specifically binds the 5'-AACAAT-3' DNA motif present in enhancers and super-enhancers and promotes expression of genes important for chondrogenesis, including cartilage matrix protein- coding genes, such as COL2A1 and AGC1. Required for overt chondrogenesis when condensed prechondrocytes differentiate into early stage chondrocytes: SOX5 and SOX6 cooperatively bind with SOX9 on active enhancers and super-enhancers associated with cartilage-specific genes, and thereby potentiate SOX9's ability to transactivate. Not involved in precartilaginous condensation, the first step in chondrogenesis, during which skeletal progenitors differentiate into prechondrocytes. Together with SOX6, required to form and maintain a pool of highly proliferating chondroblasts between epiphyses and metaphyses, to form columnar chondroblasts, delay chondrocyte prehypertrophy but promote hypertrophy, and to delay terminal differentiation of chondrocytes on contact with ossification fronts. Binds to the proximal promoter region of the myelin protein MPZ gene.

Cellular Location
Nucleus {ECO:0000250|UniProtKB:P35710}.

Anti-SOX5 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-SOX5 Picoband Antibody - Images

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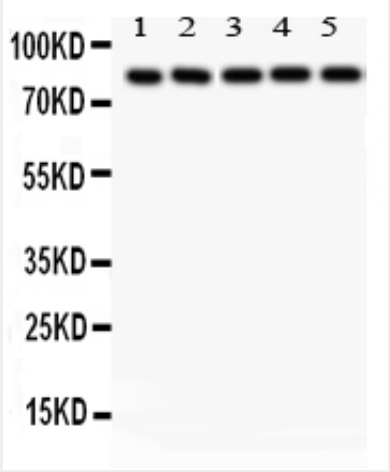

Anti- SOX5 Picoband antibody, ABO12195, Western blottingAll lanes: Anti SOX5 (ABO12195) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: Rat Testis Tissue Lysate at 50ugLane 3: Rat Brain Tissue Lysate at 50ugLane 4: HELA Whole Cell Lysate at 40ugLane 5: A549 Whole Cell Lysate at 40ugPredicted bind size: 84KDObserved bind size: 84KD

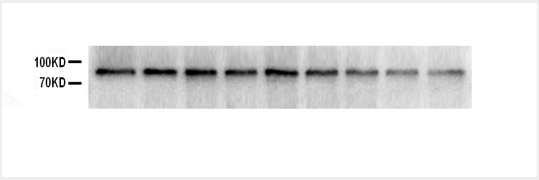

Figure 2. Western blot analysis of SOX5 using anti-SOX5 antibody (ABO12195). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 40ug of sample under reducing conditions. lane 1: pig adipose cellsAfter 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-SOX5 antigen affinity purified polyclonal antibody (Catalog # ABO12195) at 0.5 Î¼g/mL overnight at 4Â°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 with Tanon 5200 system. A specific band was detected for SOX5 at approximately 84KD. The expected band size for SOX5 is at 84KD.

Anti-SOX5 Picoband Antibody - Background

Transcription factor SOX-5 is a protein that in humans is encoded by the SOX5 gene. It is located on 12p12.1. This gene encodes a member of the SOX (SRY-related HMG-box) family of transcription factors involved in the regulation of embryonic development and in the determination of the cell fate. The encoded protein may act as a transcriptional regulator after forming a protein complex with other proteins. In addition, the encoded protein may play a role in chondrogenesis. A pseudogene of this gene is located on chromosome 8. Multiple transcript variants encoding distinct isoforms have been identified for this gene.