

Anti-SOX5 Picoband Antibody

Catalog # ABO12195

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.

Additional Information

Gene ID	6660
Other Names	Transcription factor SOX-5, SOX5
Calculated MW	84026
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat, Pig
Subcellular Localization	Nucleus .
Source	Eukaryota
Protein Name	Transcription factor SOX-5
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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 reconstitution, 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.

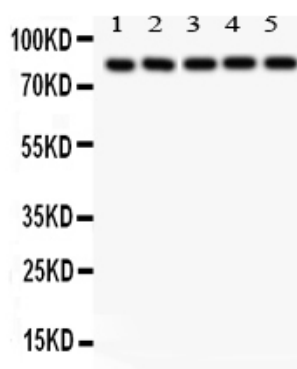
Protein Information

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'-AACAAAT-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}.

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.

Images



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

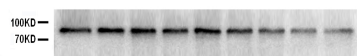


Figure 2. Western blot analysis of SOX5 using anti-SOX5 antibody (ABO12195). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 40ug of sample under reducing conditions. lane 1: pig adipose cellsAfter 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 μ g/mL overnight at 4 °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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.