Product datasheet

Anti-SOX9 antibody ab26414

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Overview

Product name
Anti-SOX9 antibody

Description
Rabbit polyclonal to SOX9

Host species
Rabbit

Tested applications
Suitable for: WB, Sandwich ELISA, IHC-P
Unsuitable for: ICC/IF or IHC-Fr

Species reactivity
Reacts with: Mouse, Rat, Human, Pig
Predicted to work with: Cow, Dog, Common marmoset

Immunogen
Synthetic peptide corresponding to Human SOX9 aa 1-100 conjugated to keyhole limpet haemocyanin.
(Peptide available as ab27845)

Positive control
This antibody gave a positive signal in the following lysates: Neuroectoderm (HESCS differentiated) Day 5 and Day 10 - Whole Cell, Caco-2 Whole Cell, SW480 Whole Cell, Mouse Fetus (14 day old) Tissue

Properties

Form
Liquid

Storage instructions
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Storage buffer
Preservative: 0.02% Sodium Azide
 Constituents: 1% BSA, PBS, pH 7.4

Purity
Immunogen affinity purified

Clonality
Polyclonal

Isotype
IgG

Applications

Our Abpromise guarantee covers the use of ab26414 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Application notes
Is unsuitable for ICC/IF or IHC-Fr.

Target

Function
Plays an important role in the normal skeletal development. May regulate the expression of other genes involved in chondrogenesis by acting as a transcription factor for these genes.

Involvement in disease
Defects in SOX9 are the cause of campomelic dysplasia (CMD1) [MIM:114290]. CMD1 is a rare, often lethal, dominantly inherited, congenital osteochondrodysplasia, associated with male-to-female autosomal sex reversal in two-thirds of the affected karyotypic males. A disease of the newborn characterized by congenital bowing and angulation of long bones, unusually small scapulae, deformed pelvis and spine and a missing pair of ribs. Craniofacial defects such as cleft palate, micrognatia, flat face and hypertelorism are common. Various defects of the ear are often evident, affecting the cochlea, malleus incus, stapes and tympanum. Most patients die soon after birth due to respiratory distress which has been attributed to hypoplasia of the tracheobronchial cartilage and small thoracic cage.

Sequence similarities
Contains 1 HMG box DNA-binding domain.

Cellular localization
Nucleus.

Images
Immunohistochemical analysis of formalin-fixed, paraffin embedded mouse spleen tissue, staining SOX9 with ab26414.

Tissue was fixed with 10% Neutral Buffered Formalin and blocked with 1.5% serum for 45 minutes 21°C; antigen retrieval was by heat mediation in a Tris-EDTA buffer (pH 9). Samples were incubated with primary antibody (0.8 µg/ml in 0.3% Triton X-100 in PBS) for 1 hours at 21°C. An biotin-conjugated goat anti-rabbit polyclonal IgG (7 µg/ml) was used as the secondary antibody.

A = Primary antibody
B = No primary antibody
Western blot - Anti-SOX9 antibody (ab26414)

All lanes: Anti-SOX9 antibody (ab26414) at 2 µg/ml

Lane 1: Neuroectoderm (differentiated from human embryonic stem cells) Day 5 - Whole Cell Lysate
Lane 2: Neuroectoderm (differentiated from human embryonic stem cells) Day 10 - Whole Cell Lysate
Lane 3: Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate
Lane 4: SW480 (Human colon adenocarcinoma cell line) Whole Cell Lysate
Lane 5: Mouse Fetus (14 Day Old) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes: Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 56 kDa
Observed band size: 56 kDa
Additional bands at: 100 kDa, 90 kDa. We are unsure as to the identity of these extra bands.

Secondary antibody goat anti-rabbit HRP preadsorbed (IgG H&L; ab97080)

Standard Curve for SOX9; dilution range 1 pg/ml to 1 µg/ml using Capture Antibody Mouse monoclonal to SOX9 (ab58191) at 5 µg/ml and Detector Antibody Rabbit polyclonal to SOX9 (ab26414) at 0.1 µg/ml.

Sandwich ELISA - Anti-SOX9 antibody (ab26414)
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX9 antibody (ab26414)

This image is courtesy of an anonymous abreview.

IHC-P image of SOX9 (ab26414) on E11.5 mouse embryo sections. The sections were fixed in paraformaldehyde and underwent heat mediated antigen retrieval using Tris/EGTA (pH9). The sections were then blocked in 1% BSA solution for 30 mins at 20°C. In these images ab26414 can be seen staining sections showing spinal cord and developing cartilage (top row), developing cartilage in vertebrae (bottom row).

Western blot - Anti-SOX9 antibody (ab26414)

Anti-SOX9 antibody (ab26414) at 1 µg/ml + Mouse Fetus (14 Day Old) Tissue Lysate at 10 µg

Secondary
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 56 kDa
Observed band size: 56 kDa

Exposure time: 90 seconds

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