abcam

Product datasheet

Anti-SIX1 antibody [1593] - BSA and Azide free ab255754

Recombinant

5 Images

Overview

Product name	Anti-SIX1 antibody [1593] - BSA and Azide free
Description	Mouse monoclonal [1593] to SIX1 - BSA and Azide free
Host species	Mouse
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: A-204 whole cell lysate. IHC-P: Human, mouse and rat skeletal muscle tissue.
General notes	ab255754 is the carrier-free version of **ab243247**. This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	1593
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab255754 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.459 µg/ml. Detects a band of approximately 32 kDa (predicted molecular weight: 32 kDa).
IHC-P		Use a concentration of 2.295 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Application notes Is unsuitable for ICC/IF.

Target

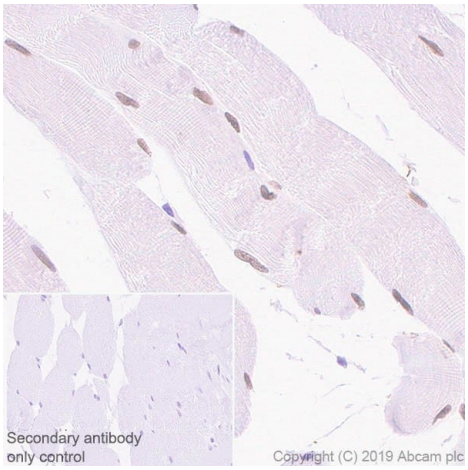
Function May be involved in limb tendon and ligament development.

Tissue specificity Specifically expressed in skeletal muscle.

Involvement in disease Defects in SIX1 are the cause of deafness autosomal dominant type 23 (DFNA23) [MIM:605192]. A form of non-syndromic deafness characterized by prelingual, bilateral, symmetric hearing loss with a conductive component present in some but not all patients.
Defects in SIX1 are the cause of branchiootic syndrome type 3 (BOS3) [MIM:608389]. BOS3 is a syndrome characterized by usually bilateral branchial cleft fistulas or cysts, sensorineural and/or conductive hearing loss, pre-auricular pits, and structural defects of the outer, middle or inner ear. Otic defects include malformed and hypoplastic pinnae, a narrowed external ear canal, bulbous internal auditory canal, stapes fixation, malformed and hypoplastic cochlea. Branchial and otic anomalies are as those seen in individuals with the branchiootorenal syndrome. However, renal anomalies are absent in branchiootic syndrome patients.
Note=Defects in SIX1 could be a cause of branchiootorenal syndrome (BOR). BOR is an autosomal dominant disorder manifested by various combinations of preauricular pits, branchial fistulae or cysts, lacrimal duct stenosis, hearing loss, structural defects of the outer, middle, or inner ear, and renal dysplasia. Associated defects include asthenic habitus, long narrow facies,

	constricted palate, deep overbite, and myopia. Hearing loss may be due to mondini type cochlear defect and stapes fixation. Penetrance of BOR syndrome is high, although expressivity can be extremely variable.
Sequence similarities	Belongs to the SIX/Sine oculis homeobox family. Contains 1 homeobox DNA-binding domain.
Cellular localization	Nucleus.

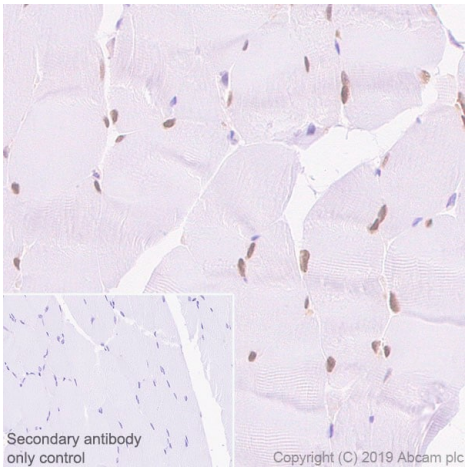
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SIX1 antibody [1593] - BSA and Azide free (ab255754)

Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labeling SIX1 with **ab243247** at 2.295µg/ml, followed by ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). Nuclear staining on human skeletal muscle tissue is observed. Counterstained with hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, followed by ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**).
Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

This image was produced using the same antibody clone but in a different formulation containing PBS, sodium azide, glycerol and BSA (**ab243247**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SIX1 antibody [1593] - BSA and Azide free (ab255754)

Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue labeling SIX1 with **ab243247** at 2.295µg/ml, followed by ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). Nuclear staining on mouse skeletal muscle tissue is observed. Counterstained with hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, followed by ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**).
Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

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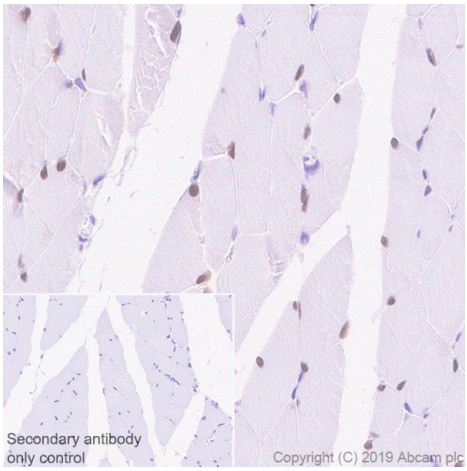

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SIX1 antibody [1593] - BSA and Azide free (ab255754)

Immunohistochemical analysis of paraffin-embedded rat skeletal muscle tissue labeling SIX1 with **ab243247** at 2.295µg/ml, followed by ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). Nuclear staining on rat skeletal muscle tissue is observed. Counterstained with hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, followed by ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**).
Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

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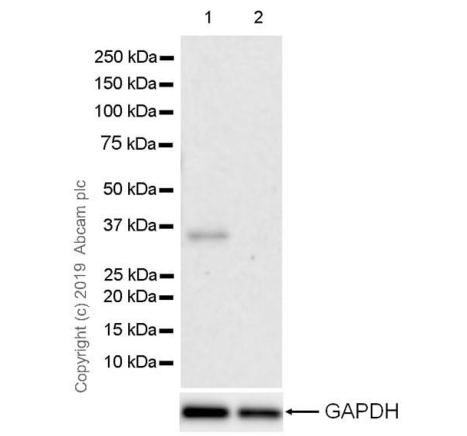

Western blot - Anti-SIX1 antibody [1593] - BSA and Azide free (ab255754)

All lanes : Anti-SIX1 antibody [1593] (**ab243247**) at 0.459 µg/ml

Lane 1 : A-204 (human muscle rhabdomyosarcoma), whole cell lysate
Lane 2 : Caco-2 (human colorectal adenocarcinoma epithelial cell), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/5000 dilution

Predicted band size: 32 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

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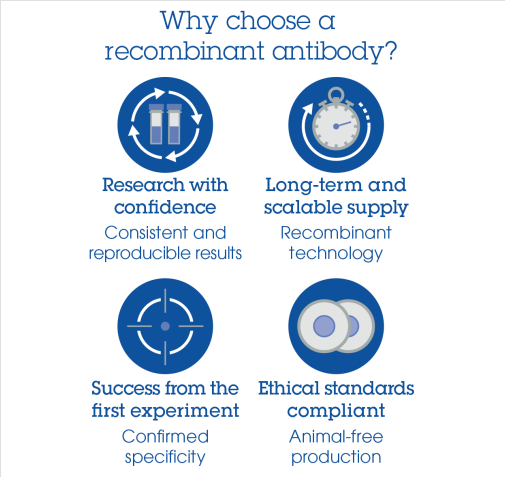

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(ab255754)

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