abcam

Product datasheet

Anti-PAX3 antibody [C2] ab69856

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Overview

Product name	Anti-PAX3 antibody [C2]
Description	Mouse monoclonal [C2] to PAX3
Tested applications	**Suitable for:** IHC-P, Flow Cyt, WB
Species reactivity	**Reacts with:** Human, Quail
Immunogen	Synthetic peptide (quail) from the C-terminus
Positive control	624 Mel nuclear lysate; Human skeletal muscle and Human skin tissue

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium Azide Constituents: 50% Glycerol, PBS, pH 7.2
Purity	Protein G purified
Clonality	Monoclonal
Clone number	C2
Isotype	IgG2a

Applications

Our Abpromise guarantee covers the use of **ab69856** in the following tested applications.

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

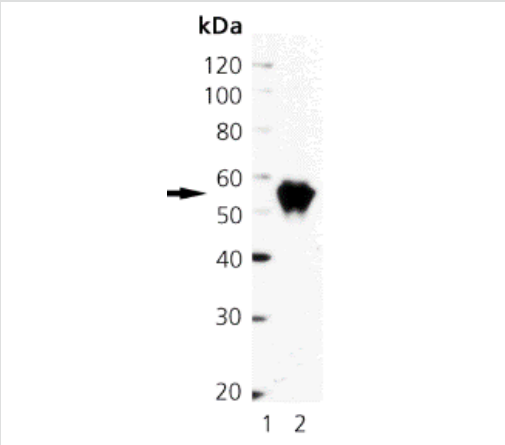
Application	Abreviews	Notes
IHC-P		Use a concentration of 10 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Flow Cyt		Use 0.5-1µg for 10^6 cells. ab170191-Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Application	Abreviews	Notes
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 53 kDa (predicted molecular weight: 53 kDa).

Target

Function	Probable transcription factor associated with development of alveolar rhabdomyosarcoma.
Involvement in disease	Defects in PAX3 are the cause of Waardenburg syndrome type 1 (WS1) [MIM:193500]. WS1 is an autosomal dominant disorder characterized by wide bridge of nose owing to lateral displacement of the inner canthus of each eye (dystopia canthorum), pigmentary disturbances such as frontal white blaze of hair, heterochromia of irides, white eyelashes, leukoderma and sensorineural deafness. The syndrome shows variable clinical expression and some affected individuals do not manifest hearing impairment. Defects in PAX3 are the cause of Waardenburg syndrome type 3 (WS3) [MIM:148820]; also known as Klein-Waardenburg syndrome or Waardenburg syndrome with upper limb anomalies or white forelock with malformations. WS3 is a very rare autosomal dominant disorder, which shares many of the characteristics of WS1. Patients additionally present with musculoskeletal abnormalities. Defects in PAX3 are the cause of craniofacial-deafness-hand syndrome (CDHS) [MIM:122880]. CDHS is thought to be an autosomal dominant disease which comprises absence or hypoplasia of the nasal bones, hypoplastic maxilla, small and short nose with thin nares, limited movement of the wrist, short palpebral fissures, ulnar deviation of the fingers, hypertelorism and profound sensory-neural deafness. Defects in PAX3 are a cause of rhabdomyosarcoma type 2 (RMS2) [MIM:268220]. It is a form of rhabdomyosarcoma, a highly malignant tumor of striated muscle derived from primitive mesenchimal cells and exhibiting differentiation along rhabdomyoblastic lines. Rhabdomyosarcoma is one of the most frequently occurring soft tissue sarcomas and the most common in children. It occurs in four forms: alveolar, pleomorphic, embryonal and botryoidal rhabdomyosarcomas. Note=A chromosomal aberration involving PAX3 is found in rhabdomyosarcoma. Translocation (2;13)(q35;q14) with FOXO1. The resulting protein is a transcriptional activator. Note=A chromosomal aberration involving PAX3 is a cause of rhabdomyosarcoma. Translocation t(2;2)(q35;p23) with NCOA1 generates the NCOA1-PAX3 oncogene consisting of the N-terminus part of PAX3 and the C-terminus part of NCOA1. The fusion protein acts as a transcriptional activator. Rhabdomyosarcoma is the most common soft tissue carcinoma in childhood, representing 5-8% of all malignancies in children.
Sequence similarities	Belongs to the paired homeobox family. Contains 1 homeobox DNA-binding domain. Contains 1 paired domain.
Cellular localization	Nucleus.

Images



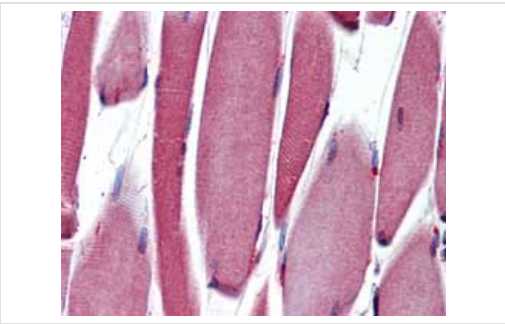
Western blot - PAX3 antibody [C2] (ab69856)

All lanes : Anti-PAX3 antibody [C2] (ab69856) at 1 µg/ml

Lane 1 : Marker
Lane 2 : 624 Mel nuclear lysate

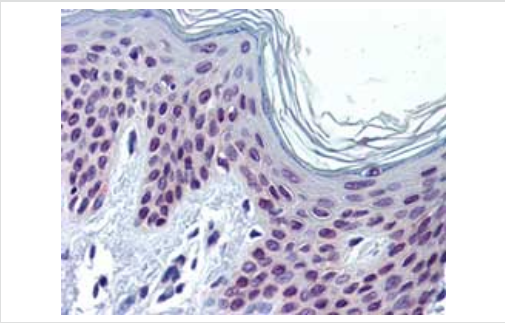
Developed using the ECL technique

Predicted band size : 53 kDa
Observed band size : 53 kDa



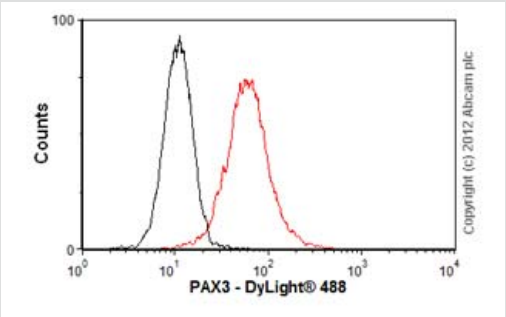
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - PAX3 antibody [C2] (ab69856)

ab109691, at 10 µg/ml, staining PAX3 in formalin-fixed, paraffin-embedded Human Skeletal muscle tissue by Immunohistochemistry.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - PAX3 antibody [C2] (ab69856)

ab109691, at 10 µg/ml, staining PAX3 in formalin-fixed, paraffin-embedded Human Skin tissue by Immunohistochemistry.



Flow Cytometry-Anti-PAX3 antibody [C2](ab69856)

Overlay histogram showing K562 cells stained with ab69856 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab69856, 0.5µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in K562 cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

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