abcam

Product datasheet

Anti-RUNX2 antibody [2B9] ab76956

8 Abreviews 275 References 4 Images

Overview

Product name	Anti-RUNX2 antibody [2B9]
Description	Mouse monoclonal [2B9] to RUNX2
Host species	Mouse
Tested applications	**Suitable for:** ICC/IF, Flow Cyt, WB
Species reactivity	**Reacts with:** Rat, Human, Recombinant fragment **Predicted to work with:** Horse, Dog, Pig, Chimpanzee, Rhesus monkey
Immunogen	Recombinant fragment: NPRPSLNSAP SPFNPQGQSQ ITDPRQAQSS PPWSYDQSYP SYLSQMTSPS IHSTTPLSST RGTGLPAITD VPRRISDDDT ATSDFCLWPS TLSKKSQAGA, corresponding to amino acids 251-351 of Human RUNX2 (NP_004339) with tag. Run BLAST with ExPASy Run BLAST with NCBI
Positive control	PC12 cell lysate;
General notes	This product was changed from ascites to tissue culture supernatant on 15 May 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Constituent: 100% PBS
Purity	Protein A purified
Purification notes	Purified from Cell Culture supernatant.

Clonality	Monoclonal
Clone number	2B9
Isotype	IgG2a
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab76956 in the following tested applications.

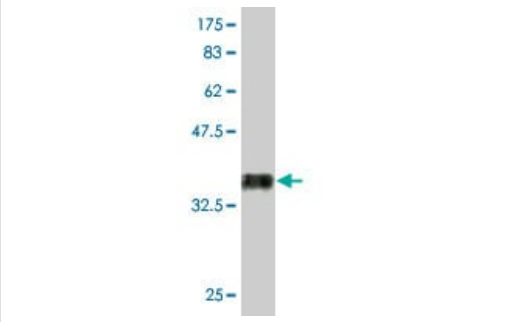
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★☆☆ (1)	Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration. **ab170191** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
WB	★★★★☆ (2)	Use at an assay dependent concentration. Predicted molecular weight: 57 kDa.

Target

Function	Transcription factor involved in osteoblastic differentiation and skeletal morphogenesis. Essential for the maturation of osteoblasts and both intramembranous and endochondral ossification. CBF binds to the core site, 5'-PYGPYGGT-3', of a number of enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T-cell receptor enhancers, osteocalcin, osteopontin, bone sialoprotein, alpha 1(I) collagen, LCK, IL-3 and GM-CSF promoters (By similarity). Inhibits MYST4-dependent transcriptional activation.
Tissue specificity	Specifically expressed in osteoblasts.
Involvement in disease	Defects in RUNX2 are the cause of cleidocranial dysplasia (CLCD) [MIM:119600]; also known as cleidocranial dysostosis (CCD). CLCD is an autosomal dominant skeletal disorder with high penetrance and variable expressivity. It is due to defective endochondral and intramembranous bone formation. Typical features include hypoplasia/aplasia of clavicles, patent fontanelles, wormian bones (additional cranial plates caused by abnormal ossification of the calvaria), supernumerary teeth, short stature, and other skeletal changes. In some cases defects in RUNX2 are exclusively associated with dental anomalies.
Sequence similarities	Contains 1 Runt domain.
Domain	A proline/serine/threonine rich region at the C-terminus is necessary for transcriptional activation of target genes and contains the phosphorylation sites.
Post-translational modifications	Phosphorylated; probably by MAP kinases (MAPK) (By similarity). Isoform 3 is phosphorylated on Ser-340.
Cellular localization	Nucleus.

Images



Western blot - Anti-RUNX2 antibody [2B9] (ab76956)

Anti-RUNX2 antibody [2B9] (ab76956) at 1 µg/ml + Recombinant tagged human RUNX2 fragment at 0.2 µg

Secondary

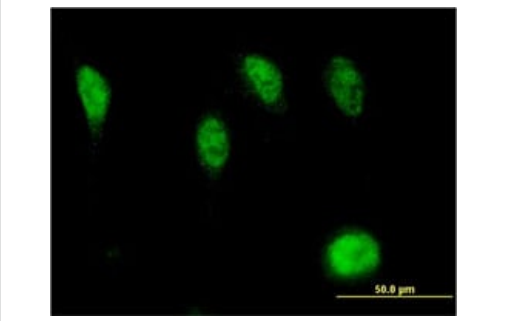
Goat anti-Mouse IgG (H&L)-HRP at 1/5000 dilution

Predicted band size: 57 kDa

Observed band size: 37 kDa

Western blot against tagged recombinant protein immunogen. Predicted band size of immunogen is 37 kDa.

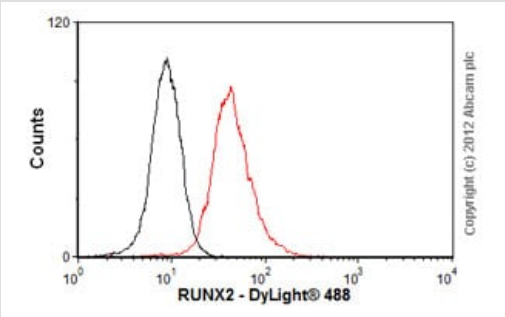
This image was generated using the ascites version of the product.



Immunocytochemistry/ Immunofluorescence - Anti-RUNX2 antibody [2B9] (ab76956)

ab76956 at 10µg/ml staining RUNX2 in HeLa cells by Immunofluorescence.

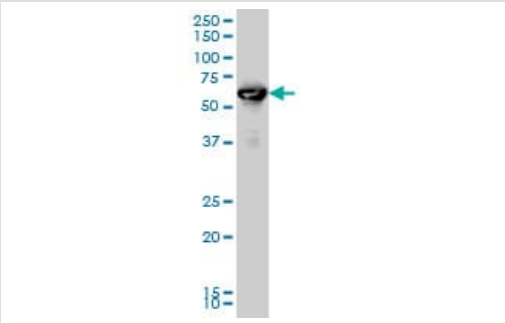
This image was generated using the ascites version of the product.



Flow Cytometry - Anti-RUNX2 antibody [2B9] (ab76956)

Overlay histogram showing Saos 2 cells stained with ab76956 (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 (ab76956, 1µg/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 image was generated using the ascites version of the product.



Western blot - Anti-RUNX2 antibody [2B9] (ab76956)

Anti-RUNX2 antibody [2B9] (ab76956) at 1 µg/ml + PC12 cell lysate at 25 µg

Secondary

Goat anti-Mouse IgG (H&L)-HRP at 1/2500 dilution

Predicted band size: 57 kDa

Observed band size: 56 kDa

This image was generated using the ascites version of the product.

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