abcam

Product datasheet

Anti-RUNX2 antibody [1D8] ab115899

6 Images

Overview

Product name	Anti-RUNX2 antibody [1D8]
Description	Mouse monoclonal [1D8] to RUNX2
Tested applications	**Suitable for:** WB, ELISA, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment, corresponding to a region within amino acids 251-351 of Human RUNX2 (NP_004339) with a 26 kDa proprietary tag.
Positive control	IHC-P: Human prostate and uterus tissues WB: SJCRH30 and K562 cell lysates ICC/IF: HeLa cell

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Constituent: 99% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	1D8
Isotype	IgG2b
Light chain type	kappa

Applications

Our Abpromise guarantee covers the use of **ab115899** 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 at an assay dependent concentration. Predicted molecular weight: 57 kDa.
ELISA		Use at an assay dependent concentration.

Application	Abreviews	Notes
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 10 µg/ml.

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.

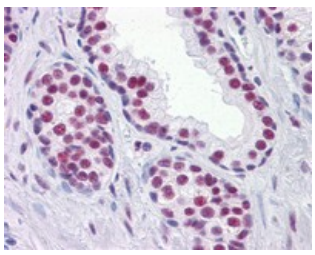
Sequence similarities
Contains 1 Runt domain.

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.

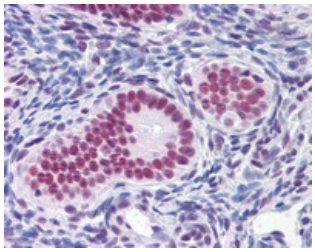
Cellular localization
Nucleus.

Images



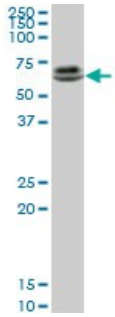
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RUNX2 antibody [1D8] (ab115899)

ab115899, at 5 µg/ml, staining RUNX2 in formalin fixed, paraffin embedded Human prostate by Immunohistochemistry.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RUNX2 antibody [1D8] (ab115899)

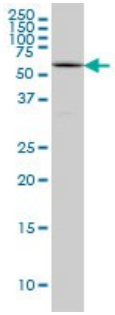
ab115899, at 5 µg/ml, staining RUNX2 in formalin fixed, paraffin embedded Human uterus by Immunohistochemistry



Western blot - Anti-RUNX2 antibody [1D8] (ab115899)

Anti-RUNX2 antibody [1D8] (ab115899) + SJCRH30 cell lysate

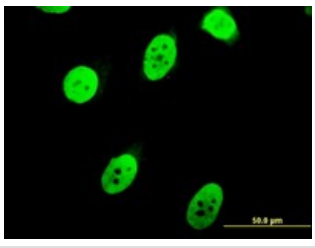
Predicted band size : 57 kDa



Western blot - Anti-RUNX2 antibody [1D8] (ab115899)

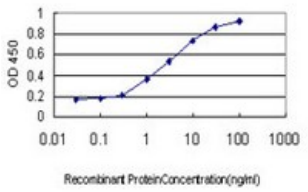
Anti-RUNX2 antibody [1D8] (ab115899) + K562 cell lysate

Predicted band size : 57 kDa



Immunocytochemistry/ Immunofluorescence - Anti-RUNX2 antibody [1D8] (ab115899)

ab115899, at 10 µg/ml, staining RUNX2 in Hela cells by Immunofluorescence.



ELISA - Anti-RUNX2 antibody [1D8] (ab115899)

Detection limit for recombinant, tagged RUNX2 is approximately 0.03 ng/ml as a capture antibody.

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