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Anti-RUNX2 Antibody

Catalog # AP51494

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q13950
Reactivity	Human, Mouse, Rat, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56648

Additional Information

Gene ID	860
Other Names	AML3; CBFA1; OSF2; PEBP2A; Runt-related transcription factor 2; Acute myeloid leukemia 3 protein; Core-binding factor subunit alpha-1; CBF-alpha-1; Oncogene AML-3; Osteoblast-specific transcription factor 2; OSF-2; Polyomavirus enhancer-binding protein 2 alpha A subunit; PEA2-alpha A; PEBP2-alpha A; SL3-3 enhancer factor 1 alpha A subunit; SL3/AKV core-binding factor alpha A subunit
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human RUNX2. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

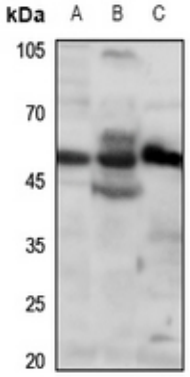
Name	RUNX2
Synonyms	AML3, CBFA1, OSF2, PEBP2A
Function	Transcription factor involved in osteoblastic differentiation and skeletal morphogenesis (PubMed:28505335, PubMed:28703881, PubMed:28738062, PubMed:16299379). Essential for the maturation of osteoblasts and both intramembranous and endochondral ossification. 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. In osteoblasts, supports transcription activation: synergizes with SPEN/MINT to enhance FGFR2-mediated activation of the

	osteocalcin FGF-responsive element (OCFRE) (By similarity). Inhibits KAT6B-dependent transcriptional activation.
Cellular Location	Nucleus. Cytoplasm {ECO:0000250|UniProtKB:Q08775}
Tissue Location	Specifically expressed in osteoblasts.

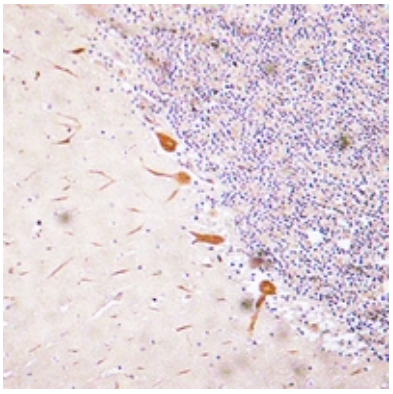
References

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Mungall A.J.,et al.Nature 425:805-811(2003).
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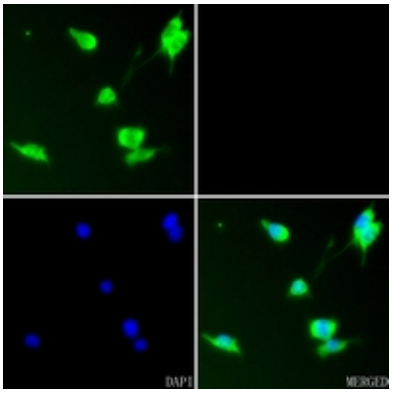
Images



Western blot analysis of RUNX2 expression in HEK293T (A), DLD (B), mouse spleen (C) whole cell lysates. (Predicted band size: 56 kD; Observed band size: 57 kD)



Immunohistochemical analysis of RUNX2 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of RUNX2 staining in B12 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.