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Phospho-RUNX2(S465) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3559a

Specification

Phospho-RUNX2(S465) Antibody - Product Information

Application	**DB,E**
Primary Accession	Q13950
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**

Phospho-RUNX2(S465) Antibody - Additional Information

Gene ID 860

Other Names
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, RUNX2, AML3, CBFA1, OSF2, PEBP2A

Target/Specificity
This RUNX2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S465 of human RUNX2.

Dilution
DB~~1:500

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Phospho-RUNX2(S465) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-RUNX2(S465) Antibody - 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). 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}

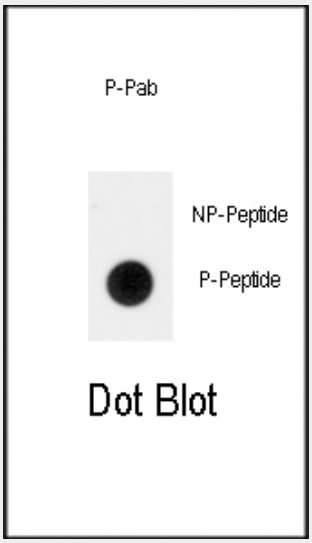
Tissue Location
Specifically expressed in osteoblasts.

Phospho-RUNX2(S465) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-RUNX2(S465) Antibody - Images



Dot blot analysis of anti-Phospho-RUNX2-pS465 Antibody (Cat.#AP3559a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-RUNX2(S465) Antibody - Background

Runx2 is a member of the RUNX family of transcription factors. It is a nuclear protein with an Runt DNA-binding domain. This protein is essential for osteoblastic differentiation and skeletal morphogenesis and acts as a scaffold for nucleic acids and regulatory factors involved in skeletal gene expression. It can bind DNA both as a monomer or, with more affinity, as a subunit of a heterodimeric complex. Mutations in the Runx2 gene have been associated with the bone development disorder cleidocranial dysplasia (CCD).

Phospho-RUNX2(S465) Antibody - References

Rich,J.T., Biochem. Biophys. Res. Commun. 372 (1), 230-235 (2008) Ermakov,S., Ann. Hum. Genet. 72 (PT 4), 510-518 (2008) Endo,T., J. Clin. Endocrinol. Metab. 93 (6), 2409-2412 (2008)

Phospho-RUNX2(S465) Antibody - Citations

- Identification of the hub genes RUNX2 and FN1 in gastric cancer
- Material-driven fibronectin assembly for high-efficiency presentation of growth factors.
- The natural compound codonolactone attenuates TGF-β1-mediated epithelial-to-mesenchymal transition and motility of breast cancer cells.
- The natural compound codonolactone impairs tumor induced angiogenesis by downregulating BMP signaling in endothelial cells.
- In vitro inhibitory effects of terpenoids from Chloranthus multistachys on epithelial-mesenchymal transition via down-regulation of Runx2 activation in human breast cancer.
- Codonolactone, a sesquiterpene lactone isolated from Chloranthus henryi Hemsl, inhibits breast cancer cell invasion, migration and metastasis by downregulating the transcriptional activity of Runx2.
- A genomics approach in determining nanotopographical effects on MSC phenotype.
- Using nanotopography and metabolomics to identify biochemical effectors of multipotency.
- Skeletal stem cell physiology on functionally distinct titania nanotopographies.
- Regulation of mechanical stress-induced MMP-13 and ADAMTS-5 expression by RUNX-2 transcriptional factor in SW1353 chondrocyte-like cells.