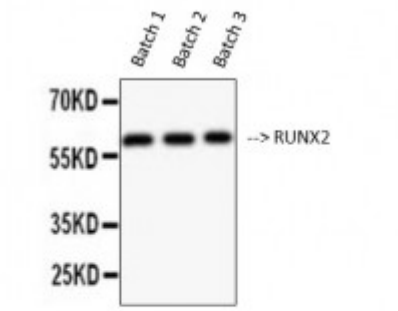
Anti-RUNX2 antibody



Western Blot (WB) analysis of K562 cells using RUNX2 Antibody(STJ96721) from 3 batches.

Description	RUNX2 is a protein encoded by the RUNX2 gene which is approximately 56,6 kDa. RUNX2 is localised to the nucleus. It is involved in gene expression, transcriptional misregulation in cancer, the dendritic cell developmental lineage pathway and the notch signalling pathway. It is essential for osteoblastic differentiation and skeletal morphogenesis and acts as a scaffold for nucleic acids and regulatory factors involved in skeletal gene expression. RUNX2 is specifically expressed in osteoblasts. Mutations in the RUNX2 gene may result in cleidocranial dysplasia. STJ96721 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of RUNX2 protein.

Model	STJ96721
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, WB
Immunogen	Synthesized peptide derived from human RUNX2.
Immunogen Region	191-240 aa, Internal
Gene ID	860
Gene Symbol	RUNX2
Dilution range	WB 1:500-1:2000ELISA 1:20000
Specificity	RUNX2 Polyclonal Antibody detects endogenous levels of RUNX2 protein.
Tissue Specificity	Specifically expressed in osteoblasts.

Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	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 pr
Molecular Weight	56 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:10472OMIM:119600
Alternative 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 pr
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. In osteoblasts, supports transcription activation: synergizes with SPEN/MINT to enhance FGFR2-mediated activation of the osteocalcin FGF-responsive element (OCFRE) . Inhibits KAT6B-dependent transcriptional activation.
Sequence and Domain Family	A proline/serine/threonine rich region at the C-terminus is necessary for transcriptional activation of target genes and contains the phosphorylation sites.
Cellular Localization	Nucleus.
Post-translational Modifications	Phosphorylated; probably by MAP kinases (MAPK). Phosphorylation by HIPK3 is required for the SPEN/MINT and FGF2 transactivation during osteoblastic differentiation . Phosphorylation at Ser-451 by CDK1 promotes endothelial cell proliferation required for tumor angiogenesis probably by facilitating cell cycle progression. Isoform 3 is phosphorylated on Ser-340.