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Runx3 Rabbit pAb

Catalog # AP99198

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q13761
Other Accession	Q13761
Reactivity	Human
Predicted	Rat, Mouse, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44356
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Runx3
Epitope Specificity	31-130/415
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 Runt domain.
SUBUNIT	Heterodimer of an alpha and a beta subunit. The alpha subunit binds DNA as a monomer and through the Runt domain. DNA-binding is increased by heterodimerization. Interacts with TLE1 and SUV39H1. The tyrosine phosphorylated form (via runt domain) interacts with SRC (via protein kinase domain). Interacts with FYN and LCK.
Post-translational modifications	Phosphorylated on tyrosine residues by SRC. Phosphorylated by LCK and FYN.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the runt domain-containing family of transcription factors. A heterodimer of this protein and a beta subunit forms a complex that binds to the core DNA sequence 5'-PYGPYGGT-3' found in a number of enhancers and promoters, and can either activate or suppress transcription. It also interacts with other transcription factors. It functions as a tumor suppressor, and the gene is frequently deleted or transcriptionally silenced in cancer. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	864
Other Names	AML2; CBFA3; PEBP2aC; RUNX3_HUMAN; RUNX3; Acute myeloid leukemia 2 protein; Core-binding factor subunit alpha-3 (CBF-alpha-3); Oncogene AML-2; Polyomavirus enhancer-binding protein 2 alpha C subunit (PEA2-alpha C | PEBP2-alpha C); SL3-3 enhancer factor 1 alpha C subunit; SL3/AKV core-binding factor alpha C subunit; PEBP2A3; RUNX family transcription

	factor 3; runt-related transcription factor 3; runt related transcription factor 3
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	RUNX3
Synonyms	AML2, CBFA3, PEBP2A3
Function	Forms the heterodimeric complex core-binding factor (CBF) with CBFB. RUNX members modulate the transcription of their target genes through recognizing the core consensus binding sequence 5'- TGTGGT-3', or very rarely, 5'-TGCGGT-3', within their regulatory regions via their runt domain, while CBFB is a non-DNA-binding regulatory subunit that allosterically enhances the sequence-specific DNA-binding capacity of RUNX. The heterodimers bind to the core site of a number of enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T-cell receptor enhancers, LCK, IL3 and GM-CSF promoters (By similarity). May be involved in the control of cellular proliferation and/or differentiation. In association with ZFHX3, up- regulates CDKN1A promoter activity following TGF-beta stimulation (PubMed:20599712). CBF complexes repress ZBTB7B transcription factor during cytotoxic (CD8+) T cell development. They bind to RUNX-binding sequence within the ZBTB7B locus acting as transcriptional silencer and allowing for cytotoxic T cell differentiation. CBF complexes binding to the transcriptional silencer is essential for recruitment of nuclear protein complexes that catalyze epigenetic modifications to establish epigenetic ZBTB7B silencing (By similarity). Necessary for the development and survival of sensory neurons expressing parvalbumin (By similarity).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00399, ECO:0000269|PubMed:20100835, ECO:0000269|PubMed:20599712}. Cytoplasm. Note=The tyrosine phosphorylated form localizes to the cytoplasm. Translocates from the cytoplasm to the nucleus following TGF-beta stimulation
Tissue Location	Expressed in gastric cancer tissues (at protein level).

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