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Rabbit Anti-phospho-RUNX1

SL3023R-FITC

Product Name:	Anti-phospho-RUNX1 (Ser249)/FITC
Chinese Name:	FITC标记的磷酸化急性髓细胞白血病1蛋白抗体
Alias:	RUNX1 (phospho-Ser249); p-RUNX1 (Ser249); RUNX1 (phospho S249); RUNX1 (phospho Ser249); Acute myeloid leukemia 1; Acute myeloid leukemia 1 protein; alpha subunit core binding factor; AML 1; AML1 EVI 1; AML1; Aml1 oncogene; AMLCR 1; AMLCR1; CBFA 2; CBFA2; Core binding factor alpha 2 subunit; Core binding factor runt domain alpha subunit 2; EVI 1; EVI1; HGNC; Oncogene AML 1; PEA2 alpha; PEBP2 alpha B; PEBP2A2; PEBP2aB; Polyomavirus enhancer binding protein 2 alpha B subunit; Run1; Runt related transcription factor 1; RUNX 1; SL3 3 enhancer factor 1 alpha B subunit; SL3/AKV core binding factor alpha B subunit; RUNX1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Rabbit,Guinea Pig,
Applications:	ICC=1:50-200IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	50kDa
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human RUNX1 around the phosphorylation site of Ser249 [QP(p-S)PP]
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.

Product Detail:	**background:** AML1/Runx1 binds DNA as a monomer and through the Runt domain. DNA binding is increased by heterodimerization with CBFB. Isoform AML1L can neither bind DNA nor heterodimerize and interferes with the transactivation activity of AML1/Runx1. 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, LCK, IL3 and GMCSF promoters. The alpha subunit binds DNA and appears to have a role in the development of normal hematopoiesis. AML1/Runx1 is expressed in a wide variety of tissues and is expressed at the highest levels in thymus, bone marrow and peripheral blood. Defects in AML1/Runx1 are the cause of familial platelet disorder with associated myeloid malignancy, an autosomal dominant disease characterized by qualitative and quantitative platelet defects, and propensity to develop acute myelogenous leukemia. **Function:** 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, LCK, IL-3 and GM-CSF promoters. The alpha subunit binds DNA and appears to have a role in the development of normal hematopoiesis. Isoform AML-1L interferes with the transactivation activity of RUNX1. Acts synergistically with ELF4 to transactivate the IL-3 promoter and with ELF2 to transactivate the mouse BLK promoter. Inhibits KAT6B-dependent transcriptional activation. **Subunit:** Heterodimer with CBFB. RUNX1 binds DNA as a monomer and through the Runt domain. DNA-binding is increased by heterodimerization. Isoform AML-1L can neither bind DNA nor heterodimerize. Interacts with TLE1 and ALYREF/THOC4. Interacts with ELF1, ELF2 and SPI1. Interacts via its Runt domain with the ELF4 N-terminal region. Interaction with ELF2 isoform 2 (NERF-1a) may act to repress RUNX1-mediated transactivation. Interacts with KAT6A and KAT6B. Interacts with SUV39H1, leading to abrogation of transactivating and DNA-binding properties of RUNX1. Interacts with YAP1. Interacts with HIPK2 (By similarity). Interaction with CDK6 prevents myeloid differentiation, reducing its transcription transactivation activity. **Subcellular Location:** Nucleus. **Tissue Specificity:** Expressed in all tissues examined except brain and heart. Highest levels in thymus, bone marrow and peripheral blood. **Post-translational modifications:** Phosphorylated in its C-terminus upon IL-6 treatment. Phosphorylation enhances interaction with KAT6A. Methylated. Phosphorylated in Ser-249 Thr-273 and Ser-276 by HIPK2 when associated with CBFB

and DNA. This phosphorylation promotes subsequent EP300 phosphorylation.

DISEASE:
Note=A chromosomal aberration involving RUNX1/AML1 is a cause of chronic myelogenous leukemia (CML). Translocation t(3;21)(q26;q22) with EAP or MECOM.
Note=A chromosomal aberration involving RUNX1/AML1 is found in childhood acute lymphoblastic leukemia (ALL). Translocation t(12;21)(p13;q22) with TEL. The translocation fuses the 3'-end of TEL to the alternate 5'-exon of AML-1H.
Note=A chromosomal aberration involving RUNX1 is found in acute leukemia. Translocation t(11,21)(q13;q22) that forms a MACROD1-RUNX1 fusion protein.
Defects in RUNX1 are the cause of familial platelet disorder with associated myeloid malignancy (FPDMM) [MIM:601399]. FPDMM is an autosomal dominant disease characterized by qualitative and quantitative platelet defects, and propensity to develop acute myelogenous leukemia.
Note=A chromosomal aberration involving RUNX1/AML1 is found in therapy-related myeloid malignancies. Translocation t(16;21)(q24;q22) that forms a RUNX1-CBFA2T3 fusion protein.
Note=A chromosomal aberration involving RUNX1/AML1 is a cause of chronic myelomonocytic leukemia. Inversion inv(21)(q21;q22) with USP16.

Similarity:
Contains 1 Runt domain.

Database links:

Entrez Gene: 861Human

Entrez Gene: 12394Mouse

Entrez Gene: 50662Rat

Omim: 151385Human

SwissProt: Q01196Human

SwissProt: Q03347Mouse

SwissProt: Q63046Rat

Unigene: 149261Human

Unigene: 612648Human

Unigene: 4081Mouse

Unigene: 470227Mouse

Unigene: 11201Rat

Important Note:

	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.