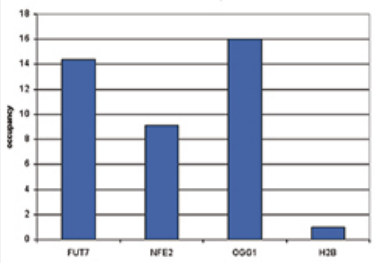
RUNX1T1-ETO polyclonal antibody

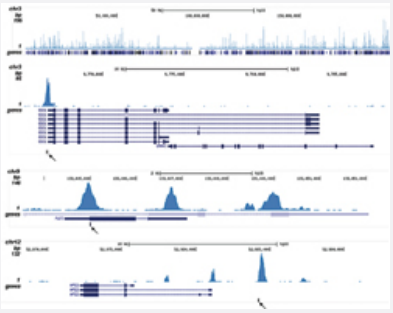
Catalog # PAB31285 Size 100 uL

Applications



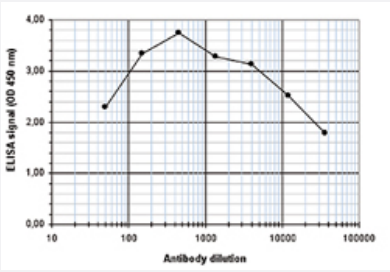
ChIP

ChIP assays were performed using Kasumi-1 cells. Sheared chromatin from 1.25 million cells and 4 ul of antibody were used per ChIP experiment. QPCR was performed using primers specific for the FUT7, NFE2 and OGG1 genes. The figure shows the occupancy, calculated as the ratio + control/background for which the promoter of the H2B gene was used.



ChIP-Seq

The figure shows the results of the complete chromosome 3 and three genomic regions surrounding the OGG1, FUT7 and NFE2 genes, respectively. The position of the PCR amplicon is indicated with an arrow.



Enzyme-linked Immunoabsorbent Assay

ELISA is a quantitative method used to determine the titer of the antibody using a serial dilution of antibody against RUNX1T1-ETO. The plates were coated with the peptides used for immunization of the rabbit. By plotting the absorbance against the antibody dilution, the titer of the antibody was estimated to be 1:32750.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of RUNX1T1-ETO.
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to human RUNX1T1-ETO fusion protein.

Host	Rabbit
Reactivity	Human
Form	Liquid
Purification	Whole antiserum
Recommend Usage	ELISA (1:500) Western Blot (1:1000) ChIP (4 ul/CHIP) The optimal working dilution should be determined by the end user.
Storage Buffer	In Whole antiserum (0.05% sodium azide).
Storage Instruction	Store at -20°C. For long term storage store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- ChIP

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- Enzyme-linked Immunoabsorbent Assay

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Gene Info — RUNX1

Entrez GeneID	861
Protein Accession#	Q01196; Q06455
Gene Name	RUNX1

Gene Alias	AML1, AML1-EVI-1, AMLCR1, CBFA2, EVI-1, PEBP2aB
Gene Description	runt-related transcription factor 1
Omim ID	151385 180300 601399 601626
Gene Ontology	Hyperlink
Gene Summary	Core binding factor (CBF) is a heterodimeric transcription factor that binds to the core element of many enhancers and promoters. The protein encoded by this gene represents the alpha subunit o f CBF and is thought to be involved in the development of normal hematopoiesis. Chromosomal tr anslocations involving this gene are well-documented and have been associated with several type s of leukemia. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq
Other Designations	AML1-EVI-1 fusion protein|acute myeloid leukemia 1|aml1 oncogene|core-binding factor, runt do main, alpha subunit 2

Gene Info — RUNX1T1

Entrez GeneID	862
Protein Accession#	Q01196; Q06455
Gene Name	RUNX1T1
Gene Alias	AML1T1, CBFA2T1, CDR, ETO, MGC2796, MTG8, MTG8b, ZMYND2
Gene Description	runt-related transcription factor 1; translocated to, 1 (cyclin D-related)
Omim ID	133435
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a putative zinc finger transcription factor and oncoprotein. In acute myeloid leukemia, especially in the M2 subtype, the t(8;21)(q22;q22) translocation is one of the most frequent karyotypic abnormalities. The translocation produces a chimeric gene made up of the 5'-region of the RUNX1 gene fused to the 3'-region of this gene. The chimeric protein is tho ught to associate with the nuclear corepressor/histone deacetylase complex to block hematopoiet ic differentiation. Several transcript variants encoding multiple isoforms have been found for this g ene. [provided by RefSeq
Other Designations	acute myelogenous leukemia 1 translocation 1 protein|acute myelogenous leukemia 1 translocati on 1, cyclin-D related|core-binding factor, runt domain, alpha subunit 2; translocated to, 1; cyclin D -related|eight twenty one protein|myeloid translocation gene

Publication Reference

- Suppression of RUNX1/ETO oncogenic activity by a small molecule inhibitor of tetramerization.

  Schanda J, Lee CW, Wohlan K, Müller-Kuller U, Kunkel H, Coco IQ, Stein S, Metz A, Koch J, Lausen J, Platzbecker U, Medyouf H, Gohlke H, Heuser M, Eder M, Grez M, Scherr M, Wichmann C.

  Haematologica 2017 May; 102(5):e170.

  Application: ChIP, Human, SKNO1 cells

- The Hematopoietic Transcription Factors RUNX1 and ERG Prevent AML1-ETO Oncogene Overexpression and Onset of the Apoptosis Program in t(8;21) AMLs.

  Mandoli A, Singh AA, Prange KH, Tijchon E, Oerlemans M, Dirks R, Ter Huurne M, Wierenga AT, Janssen-Megens EM, Berentsen K, Sharifi N, Kim B, Matarese F, Nguyen LN, Hubner NC, Rao NA, van den Akker E, Altucci L, Vellenga E, Stunnenberg HG, Martens JH.

  Cell Reports 2016 Nov; 17(8):2087.

  Application: ChIP-Seq, WB-Ce, WB-Tr, Human, Kasumi-1 cells

- MEIS2 Is an Oncogenic Partner in AML1-ETO-Positive AML.

  Vegi NM, Klappacher J, Oswald F, Mulaw MA, Mandoli A, Thiel VN, Bamezai S, Feder K, Martens JH, Rawat VP, Mandal T, Quintanilla-Martinez L, Spiekermann K, Hiddemann W, Dohner K, Döhner H, Stunnenberg HG, Feuring-Buske M, Buske C.

  Cell Reports 2016 Jul; 16(2):498.

  Application: ChIP, IP, WB-Tr, Human, HEK 293, Kasumi-1, SKNO-1 cells

- Loss of TET2 in hematopoietic cells leads to DNA hypermethylation of active enhancers and induction of leukemogenesis.

  Rasmussen KD, Jia G, Johansen JV, Pedersen MT, Rapin N, Bagger FO, Porse BT, Bernard OA, Christensen J, Helin K.

  Genes & Development 2015 May; 29(9):910.

  Application: ChIP, Mouse, AE cells

- Immune evasion by oncogenic proteins of acute myeloid leukemia.

  Elias S, Yamin R, Golomb L, Tsukerman P, Stanietsky-Kaynan N, Ben-Yehuda D, Mandelboim O.

  Blood 2014 Mar; 123(10):1535.

  Application: ChIP, Human, Kasumi-1 cells

- ERG and FLI1 binding sites demarcate targets for aberrant epigenetic regulation by AML1-ETO in acute myeloid leukemia.

  Martens JH, Mandoli A, Simmer F, Wierenga BJ, Saeed S, Singh AA, Altucci L, Vellenga E, Stunnenberg HG.

  Blood 2012 Nov; 120(19):4038.

  Application: ChIP-Seq, Human, SKNO-1 cells

Pathway

- Acute myeloid leukemia
- Acute myeloid leukemia
- Chronic myeloid leukemia
- Pathways in cancer
- Pathways in cancer

Disease

- Arthritis
- Asthma
- Blast Crisis
- Cardiovascular Diseases
- Colitis
- Crohn Disease
- Diabetes Mellitus
- Disease Progression
- Disease Susceptibility
- Edema
- Genetic Predisposition to Disease
- Immune System Diseases
- Leukemia
- Liver Cirrhosis
- Lupus Erythematosus
- Myelodysplastic Syndromes
- Pancreatic cancer

- Pancreatic Neoplasms
- Psoriasis
- Schizophrenia
- Tobacco Use Disorder