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CBFA2T2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16252A

Product Information

Application	IF, WB, E
Primary Accession	O43439
Other Accession	NP_001028171.1, NP_005084.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35359
Calculated MW	67133
Antigen Region	1-29

Additional Information

Gene ID	9139
Other Names	Protein CBFA2T2, ETO homologous on chromosome 20, MTG8-like protein, MTG8-related protein 1, Myeloid translocation-related protein 1, p85, CBFA2T2, EHT, MTGR1
Target/Specificity	This CBFA2T2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-29 amino acids from the N-terminal region of human CBFA2T2.
Dilution	IF~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
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	CBFA2T2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CBFA2T2
Synonyms	EHT, MTGR1

Function	Transcriptional corepressor which facilitates transcriptional repression via its association with DNA-binding transcription factors and recruitment of other corepressors and histone-modifying enzymes (PubMed:12559562, PubMed:15203199). Via association with PRDM14 is involved in regulation of embryonic stem cell (ESC) pluripotency (PubMed:27281218). Involved in primordial germ cell (PCG) formation. Stabilizes PRDM14 and OCT4 on chromatin in a homooligomerization- dependent manner (By similarity). Can repress the expression of MMP7 in a ZBTB33-dependent manner (PubMed:23251453). May function as a complex with the chimeric protein RUNX1/AML1-CBFA2T1/MTG8 (AML1-MTG8/ETO fusion protein) which is produced in acute myeloid leukemia with the chromosomal translocation t(8;21). May thus be involved in the repression of AML1-dependent transcription and the induction of G- CSF/CSF3-dependent cell growth. May be a tumor suppressor gene candidate involved in myeloid tumors with the deletion of the 20q11 region. Through heteromerization with CBFA2T3/MTG16 may be involved in regulation of the proliferation and the differentiation of erythroid progenitors by repressing the expression of TAL1 target genes (By similarity). Required for the maintenance of the secretory cell lineage in the small intestine. Can inhibit Notch signaling probably by association with RBPJ and may be involved in GFI1-mediated Paneth cell differentiation (By similarity).
Cellular Location	Nucleus.
Tissue Location	Ubiquitously expressed in fetal and adult tissues. Highly expressed in adult brain, heart, lung, kidney, lymph node, appendix, thymus, testis, uterus, small intestine, prostate and thymus

Background

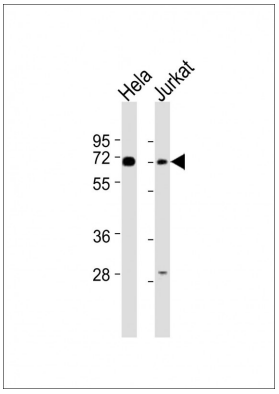
In acute myeloid leukemia, especially in the M2 subtype, the t(8;21)(q22;q22) translocation is one of the most frequent karyotypic abnormalities. The translocation produces a chimeric gene made up of the 5'-region of the RUNX1 (AML1) gene fused to the 3'-region of the CBFA2T1 (MTG8) gene. The chimeric protein is thought to associate with the nuclear corepressor/histone deacetylase complex to block hematopoietic differentiation. The protein encoded by this gene binds to the AML1-MTG8 complex and may be important in promoting leukemogenesis. Several transcript variants are thought to exist for this gene, but the full-length natures of only three have been described.

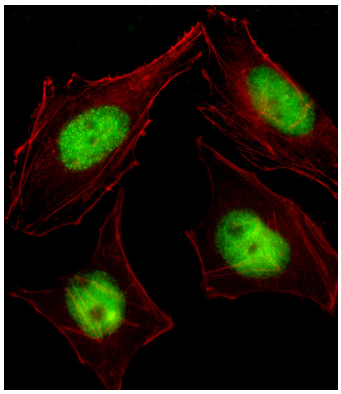
References

Guastadisegni, M.C., et al. Leukemia 24(8):1516-1519(2010)
Ossovskaya, V.S., et al. J. Neurosci. Methods 177(2):322-333(2009)
Venkatesan, K., et al. Nat. Methods 6(1):83-90(2009)
Olsson, A., et al. Biochim. Biophys. Acta 1779(10):590-598(2008)
Kumar, R., et al. Mol. Cancer Res. 4(9):655-665(2006)

Images

All lanes : Anti-CBFA2T2 Antibody (N-term) at 1:2000 dilution Lane 1: Hela whole cell lysates Lane 2: Jurkat whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





Fluorescent image of Hela cell stained with CBFA2T2 Antibody (N-term)(Cat#AP16252a).Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with CBFA2T2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C).CBFA2T2 immunoreactivity is localized to Nucleus significantly.