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Product datasheet

Anti-RUNX1 / AML1 antibody [EPR23309-113] - ChIP Grade ab272456

リコンビナント RabMAb

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製品の概要

製品名	Anti-RUNX1 / AML1 antibody [EPR23309-113] - ChIP Grade
製品の詳細	Rabbit monoclonal [EPR23309-113] to RUNX1 / AML1 - ChIP Grade
由来種	Rabbit
アプリケーション	**適用あり:** ChIC/CUT&RUN-seq, Flow Cyt (Intra), WB, ChIP, IP **適用なし:** ICC/IF or IHC-P
種交差性	**交差種:** Human **非交差種:** Mouse, Rat
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: Jurkat, MOLT-4 and THP-1 whole cell lysates. Flow Cyt (intra): Jurkat cells. IP: Jurkat and K562 whole cell lysate. ChIP: Chromatin prepared from K562 cells. ChIC/CUT&RUN-Seq: K-562 cells.
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
バッファー	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
精製度	Protein A purified

ポリ/モノ	モノクローナル
クローン名	EPR23309-113
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、次のテスト済みアプリケーションにおけるab272456の使用に適用されます**

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ChIC/CUT&RUN-seq		Use at an assay dependent concentration. 5µg
Flow Cyt (Intra)		1/500.
WB		1/1000. Detects a band of approximately 27-48 kDa (predicted molecular weight: 48 kDa).
ChIP	★★★☆☆ (1)	Use 5 µg for 25 µg of chromatin.
IP		1/30.

追加情報 Is unsuitable for ICC/IF or IHC-P.

ターゲット情報

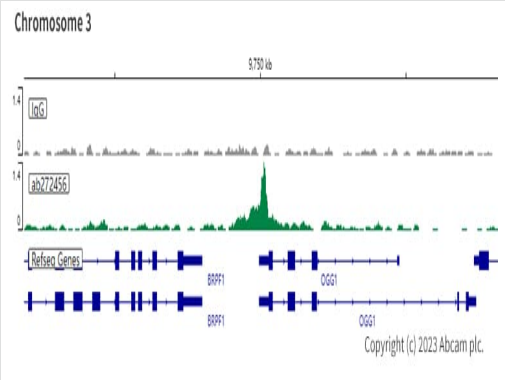
機能 CBF binds to the core site, 5'-PYGPYGGT-3', of a number of enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T-cell receptor enhancers, LCK, IL-3 and GM-CSF promoters. The alpha subunit binds DNA and appears to have a role in the development of normal hematopoiesis. 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 MYST4-dependent transcriptional activation.

組織特異性 Expressed in all tissues examined except brain and heart. Highest levels in thymus, bone marrow and peripheral blood.

関連疾患 Note=A chromosomal aberration involving RUNX1/AML1 is a cause of M2 type acute myeloid leukemia (AML-M2). Translocation t(8;21)(q22;q22) with RUNX1T1.
Note=A chromosomal aberration involving RUNX1/AML1 is a cause of therapy-related myelodysplastic syndrome (T-MDS). Translocation t(3;21)(q26;q22) with EAP or MECOM.
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.
配列類似性	Contains 1 Runt domain.
ドメイン	A proline/serine/threonine rich region at the C-terminus is necessary for transcriptional activation of target genes.
翻訳後修飾	Phosphorylated in its C-terminus upon IL-6 treatment. Phosphorylation enhances interaction with MYST3. Methylated.
細胞内局在	Nucleus.

画像

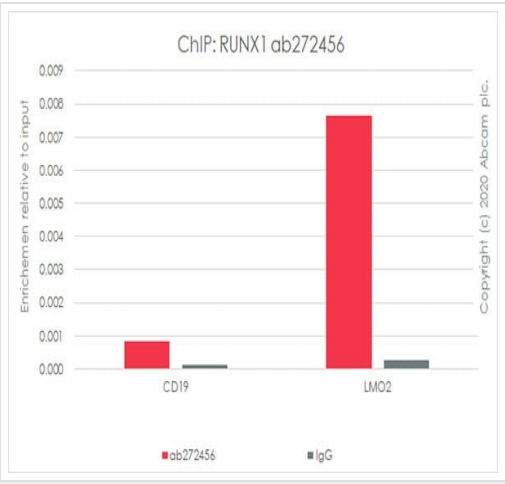


ChIC/CUT&RUN sequencing - Anti-RUNX1 / AML1 antibody [EPR23309-113] - ChIP Grade (ab272456)

ChIC/CUT&RUN was performed using a pAG-MNAse at a final concentration of 700 ng/mL, 2.5 x 10^5 K-562 (Human chronic myelogenous leukemia lymphoblast) cells and 5µg of ab272456 [EPR23309-113]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control **ab172730** is also shown.

Additional screenshots of mapped reads can be downloaded **here**.

The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.

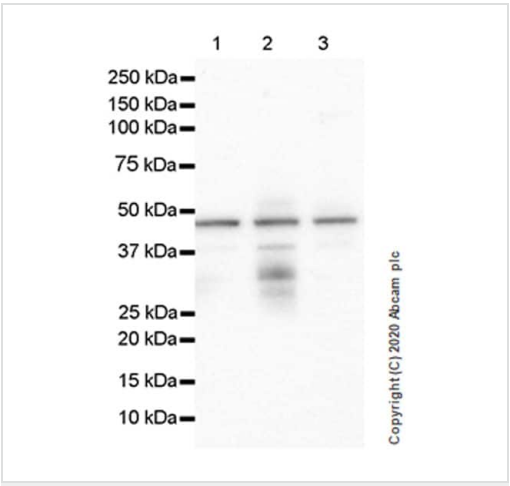


ChIP - Anti-RUNX1 / AML1 antibody [EPR23309-113] - ChIP Grade (ab272456)

Chromatin was prepared from K-562 cells according to the Abcam Dual-X-ChIP protocol*. Cells were fixed with 1.5 mM EGS for 30mins and then formaldehyde for 10min.
The ChIP was performed with 25 µg of chromatin, 5 µg of ab272456 (red), or 5 µg of rabbit normal IgG **ab172730** (gray) and 20 µl of Protein A/G sepharose beads. The immunoprecipitated DNA was quantified by real time PCR (Taqman approach for active and inactive loci, Sybr green approach for heterochromatic loci). Primers and probes are from paper PMID:20959602

***https://www.abcam.com/resources?keywords=X%20ChIP%20protocol**

The RUNX1 enrichment profile is consistent with what have been described in literature (PMID: 20959602).



Western blot - Anti-RUNX1 / AML1 antibody [EPR23309-113] (ab272456)

All lanes : Anti-RUNX1 / AML1 antibody [EPR23309-113] - ChIP Grade (ab272456) at 1/1000 dilution

Lane 1 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate
Lane 2 : MOLT-4 (human lymphoblastic leukemia t lymphoblast) whole cell lysate
Lane 3 : THP-1 (human monocytic leukemia monocyte) whole cell lysate

Lysates/proteins at 20 µg per lane.

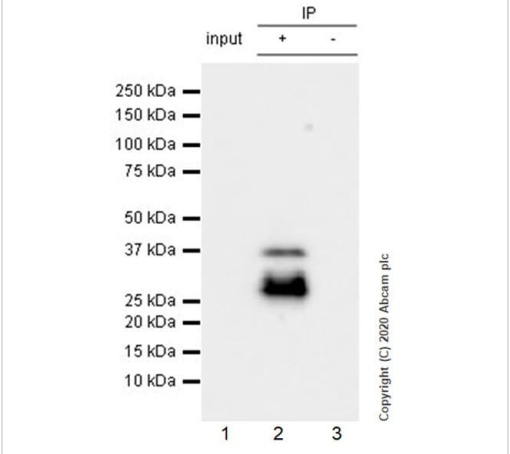
Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/100000 dilution

Predicted band size: 48 kDa
Observed band size: 27-48 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

RUNX1 has several isoforms. The molecular weight observed is consistent with what have been described in literature (PMID:17431130, 29296779).

Exposure time: 3 minutes



Immunoprecipitation - Anti-RUNX1 / AML1 antibody [EPR23309-113] (ab272456)

RUNX1 / AML1 was immunoprecipitated from 0.35 mg Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate with ab272456 at 1/30 dilution. Western blot was performed on the immunoprecipitate using ab272456 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(**ab131366**) was used at 1/5000 dilution.

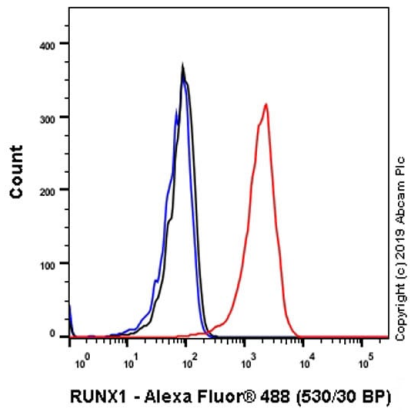
Lane 1: Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate 20 ug

Lane 2: ab272456 IP in Jurkat whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab272456 in Jurkat whole cell lysate

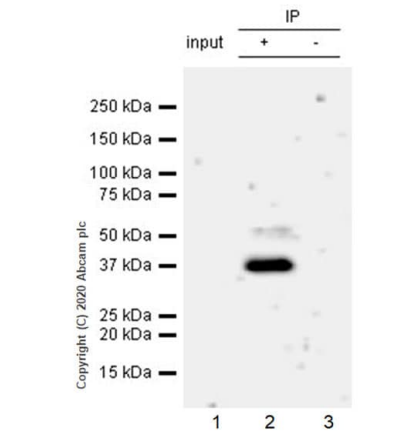
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 32 seconds.



Flow Cytometry (Intracellular) - Anti-RUNX1 / AML1 antibody [EPR23309-113] - ChIP Grade (ab272456)

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized Jurkat (Human T cell leukemia T lymphocyte) cells labelling RUNX1 / AML1 with ab272456 at 1/500 dilution (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-RUNX1 / AML1 antibody [EPR23309-113] - ChIP Grade (ab272456)

RUNX1 / AML1 was immunoprecipitated from K562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate with ab272456 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab272456 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/5000 dilution.

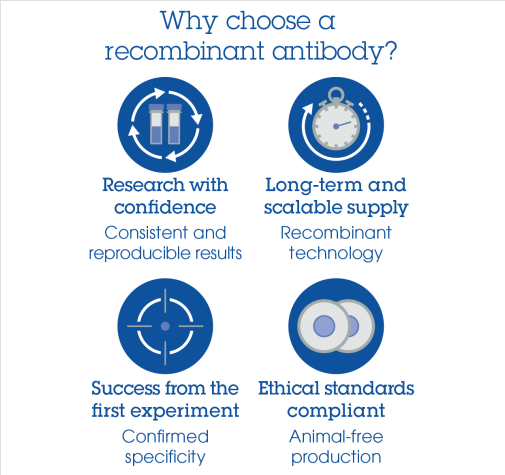
Lane 1: K562 whole cell lysate 10 µg

Lane 2: ab272456 IP in K562 whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab272456 in K562 whole cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: 3 mins.



Anti-RUNX1 / AML1 antibody [EPR23309-113] - ChIP Grade (ab272456)

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