

Datasheet for 100-401-V33**AML1-ETO Antibody****Overview**

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| Description: | Anti-AML1-ETO (RABBIT) Antibody - 100-401-V33 |
| Item No.: | 100-401-V33 |
| Size: | 100 µL |
| Applications: | ChIP, ELISA, WB, Other |
| Reactivity: | Human |
| Host Species: | Rabbit |

Product Details

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|----------------------|--|
| Background: | This antibody specifically recognizes the AML1 (RUNX1) (UniProtKB/Swiss-Prot entry Q01196) - ETO (RUNX1T1) (UniProtKB/Swiss-Prot entry Q06455) fusion protein that arises due to a translocation between chromosome 8 and 22. This translocation is one of the most frequent karyotypic abnormalities observed in acute myeloid leukemia. It produces a chimerical gene made up of the 5'-region of AML1 and the 3'-region of ETO. The chimerical protein is thought to associate with the nuclear corepressor/histone deacetylase complex to block hematopoietic differentiation. Anti-AML1-ETO Antibody is ideal for research in Cancer and Gene Expression. |
| Synonyms: | Runt-related transcription factor 1, Acute myeloid leukemia 1 protein, Core-binding factor subunit alpha-2, CBF-alpha-2, Oncogene AML-1, Polyomavirus enhancer-binding protein 2 alpha B subunit, PEA2-alpha B, PEBP2-alpha B, SL3-3 enhancer factor 1 alpha B subunit, SL3/AKV core-binding factor alpha B subunit |
| Host Species: | Rabbit |
| Clonality: | Polyclonal |
| Format: | Antiserum |

Target Details

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| Gene Name: | RUNX1 |
| Reactivity: | Human |
| Immunogen Type: | Conjugated Peptide |

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| Immunogen: | Anti-AML1-ETO Antibody was produced in rabbits by repeated immunizations with a synthetic peptide of human AML1-ETO. |
| Purity/Specificity: | Anti-AML1-ETO Antibody is monospecific antiserum processed by delipidation and defibrination followed by sterile filtration. This product reacts with human AML1-ETO. Cross reactivity with AML1-ETO from other sources is not known. |
| Relevant Links: | <ul style="list-style-type: none">• UniProtKB - Q01196• GeneID - 861• NCBI - NP_001001890 |

Application Details

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| Tested Applications: | ChIP, ELISA, WB |
| Suggested Applications: | Other (Based on references) |
| Application Note: | Anti-AML1-ETO Antibody has been tested in ChIP, ELISA and Western Blots. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 80 kDa in the appropriate cell lysate or extract. |
| Assay Dilutions: | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| ChIP: | 4 µl/ChIP |
| ELISA: | 1:500 |
| WB: | 1:1,000 |

Formulation

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| Physical State: | Liquid (sterile filtered) |
| Concentration: | neat |
| Buffer: | None |
| Preservative: | 0.05% (w/v) Sodium Azide and 0.05% ProClin 300 |
| Stabilizer: | None |

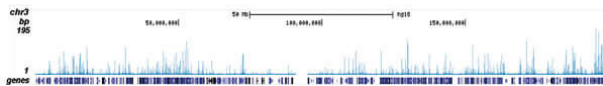
Shipping & Handling

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| Shipping Condition: | Dry Ice |
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Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

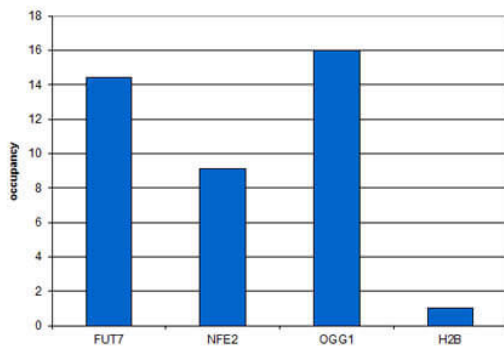
Expiration: Expiration date is one (1) year from date of receipt.

Images



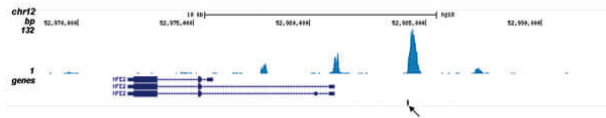
ChIP

ChIP-seq results obtained with the antibody directed against AML1-ETO. ChIP was performed as described in figure 1. The IP'd DNA from 6 ChIP's were pooled and analyzed with an Illumina Genome Analyzer. Library preparation, cluster generation, and sequencing were performed according to the manufacturer's instructions. The 32 bp tags were aligned to the human reference genome (hg18) using the ELAND algorithm. Figure 2 shows the results of the complete chromosome 3. Figure 3-5 shows three genomic regions surrounding the OGG1, FUT7 and NFE2 genes, respectively. The position of the PCR amplicon is indicated with an arrow.



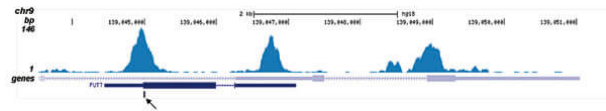
ChIP

Chromatin Immunoprecipitation results of Rabbit Anti-AML1-ETO Antibody. Chromatin from 1.25 million formaldehyde cross-linked Kasumi-1 cells was used with 4ul of Anti-AML1-ETO Antibody and 20ul of magnetic IgG beads per immunoprecipitation. QPCR was performed using primers specific for the FUT7, NFE2 and OGG1 genes. ChIP results shows the occupancy, calculated as the ratio + control/background for which the H2B gene was used.



ChIP

ChIP-seq results obtained with the antibody directed against AML1-ETO. ChIP was performed as described in figure 1. The IP'd DNA from 6 ChIP's were pooled and analyzed with an Illumina Genome Analyzer. Library preparation, cluster generation, and sequencing were performed according to the manufacturer's instructions. The 32 bp tags were aligned to the human reference genome (hg18) using the ELAND algorithm. Figure 2 shows the results of the complete chromosome 3. Figure 3-5 shows three genomic regions region surrounding the OGG1, FUT7 and NFE2 genes, respectively. The position of the PCR amplicon is indicated with an arrow.

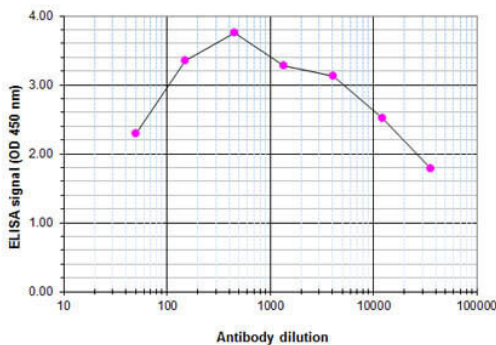


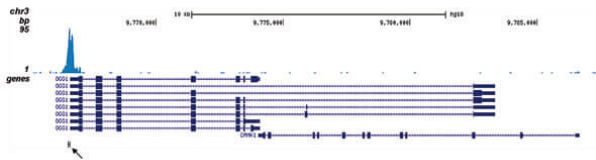
ChIP

ChIP-seq results obtained with the antibody directed against AML1-ETO. ChIP was performed as described in figure 1. The IP'd DNA from 6 ChIP's were pooled and analyzed with an Illumina Genome Analyzer. Library preparation, cluster generation, and sequencing were performed according to the manufacturer's instructions. The 32 bp tags were aligned to the human reference genome (hg18) using the ELAND algorithm. Figure 2 shows the results of the complete chromosome 3. Figure 3-5 shows three genomic regions region surrounding the OGG1, FUT7 and NFE2 genes, respectively. The position of the PCR amplicon is indicated with an arrow.

ELISA

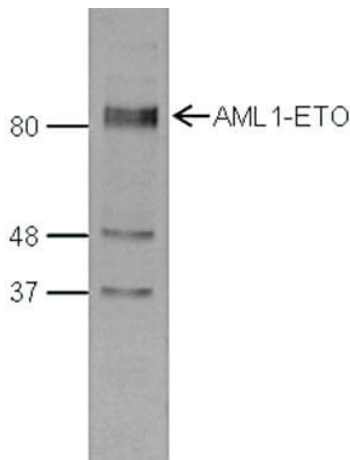
ELISA results of Rabbit anti-AML1-ETO antibody. Antigen: BSA conjugated AML1-ETO. Coating amount: 0.1 µg per well. Dilution series: serial dilution. Estimated Antibody Titer to be 1:32,750. Substrate: TMB (p/n TMBE-1000).





ChIP

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Western Blot

Western blot results of Rabbit Anti-AML1-ETO antibody. Lane 1: SKNO-1 Nuclear extract lysates. Load: 15 µg. Primary antibody: AML1-ETO antibody at 1:1000 overnight at 4°C. Secondary antibody: Goat Anti-rabbit HRP secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO/TBST overnight at 4°C.

References

- Qi X et al. HDN-1 induces cell differentiation toward apoptosis in promyelocytic leukemia cells depending on its selective effect on client proteins of Hsp90. *Toxicol Appl Pharmacol.* (2021)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.