

Human IKZF1 knockout Jurkat cell lysate ab274978

画像数 2

製品の概要

製品名	Human IKZF1 knockout Jurkat cell lysate
製品の概要	Knockout cell lysate achieved by CRISPR/Cas9.
Parental Cell Line	Jurkat
Organism	Human
Mutation description	Knockout achieved by CRISPR/Cas9; X = 2 bp insertion, 1 bp insertion; Frameshift: 100%
Passage number	<20
Knockout validation	Next Generation Sequencing (NGS), Western Blot (WB)
Reconstitution notes	To use as WB control, resuspend the lyophilizate in 50 µL of LDS* Sample Buffer to have a final concentration of 2 mg/ml. For reducing conditions, we recommend a final concentration of 0.1 M DTT.

**Usage of SDS sample buffer is not recommended with these lyophilized lysates.*

特記事項

Lysate preparation: Our lysates are made using RIPA buffer to which we add a protease inhibitor cocktail and phosphatase inhibitor cocktail (ratio: 300:100:10). *This means that the protein of interest is denatured.* If you require a native form of the protein please use the live cell version - found [here](#). Please refer to our lysis protocol for further details on how our lysates are prepared.

User storage instructions: Lyophilizate may be stored at 4°C. After reconstitution, store at -20°C for short-term storage or -80°C for long-term storage.

Access thousands of knockout cell lysates, generated from commonly used cancer cell lines.

[See here for more information on knockout cell lysates.](#)

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アプリケーション

適用あり: WB

製品の特徴

保存方法 Store at -80°C. Please refer to protocols.

内容	1 kit
ab281345 - Human IKZF1 knockout Jurkat cell lysate	1 x 100µg
ab269598 - Human wild-type Jurkat cell lysate	1 x 100µg

Cell type T cell lymphoblast-like
Disease Non-Hodgkin Lymphoma
Gender Male

ターゲット情報

機能 Transcription regulator of hematopoietic cell differentiation (PubMed:17934067). Binds gamma-satellite DNA (PubMed:17135265, PubMed:19141594). Plays a role in the development of lymphocytes, B- and T-cells. Binds and activates the enhancer (delta-A element) of the CD3-delta gene. Repressor of the TDT (terminal deoxynucleotidyltransferase) gene during thymocyte differentiation. Regulates transcription through association with both HDAC-dependent and HDAC-independent complexes. Targets the 2 chromatin-remodeling complexes, NuRD and BAF (SWI/SNF), in a single complex (PYR complex), to the beta-globin locus in adult erythrocytes. Increases normal apoptosis in adult erythroid cells. Confers early temporal competence to retinal progenitor cells (RPCs) (By similarity). Function is isoform-specific and is modulated by dominant-negative inactive isoforms (PubMed:17135265, PubMed:17934067).

組織特異性 Abundantly expressed in thymus, spleen and peripheral blood Leukocytes and lymph nodes. Lower expression in bone marrow and small intestine.

関連疾患 Defects in IKZF1 are frequent occurrences (28.6%) in acute lymphoblastic leukemia (ALL). Such alterations or deletions lead to poor prognosis for ALL. Chromosomal aberrations involving IKZF1 are a cause of B-cell non-Hodgkin lymphomas (B-cell NHL). Translocation t(3;7)(q27;p12), with BCL6.

配列類似性 Belongs to the Ikaros C2H2-type zinc-finger protein family. Contains 6 C2H2-type zinc fingers.

ドメイン The N-terminal zinc-fingers 2 and 3 are required for DNA binding as well as for targeting IKZF1 to pericentromeric heterochromatin. The C-terminal zinc-finger domain is required for dimerization.

翻訳後修飾 Phosphorylation controls cell-cycle progression from late G(1) stage to S stage. Hyperphosphorylated during G2/M phase. Dephosphorylated state during late G(1) phase. Phosphorylation on Thr-140 is required for DNA and pericentromeric location during mitosis. CK2 is the main kinase, in vitro. GSK3 and CDK may also contribute to phosphorylation of the C-terminal serine and threonine residues. Phosphorylation on these C-terminal residues reduces the DNA-binding ability. Phosphorylation/dephosphorylation events on Ser-13 and Ser-295 regulate TDT expression during thymocyte differentiation. Dephosphorylation by protein phosphatase 1 regulates stability and pericentromeric heterochromatin location. Phosphorylated in both lymphoid and non-lymphoid tissues (By similarity). Phosphorylation at Ser-361 and Ser-364 downstream of SYK induces nuclear translocation. Sumoylated. Simultaneous sumoylation on the 2 sites results in a loss of both HDAC-dependent and HDAC-independent repression. Has no effect on pericentromeric heterochromatin location.

Desumoylated by SENP1.
Polyubiquitinated.

細胞内局在

Cytoplasm; Nucleus. In resting lymphocytes, distributed diffusely throughout the nucleus. Localizes to pericentromeric heterochromatin in proliferating cells. This localization requires DNA binding which is regulated by phosphorylation / dephosphorylation events and Nucleus. In resting lymphocytes, distributed diffusely throughout the nucleus. Localizes to pericentromeric heterochromatin in proliferating cells. This localization requires DNA binding which is regulated by phosphorylation / dephosphorylation events (By similarity).

製品の状態

There are 7 isoforms produced by alternative splicing.

アプリケーション

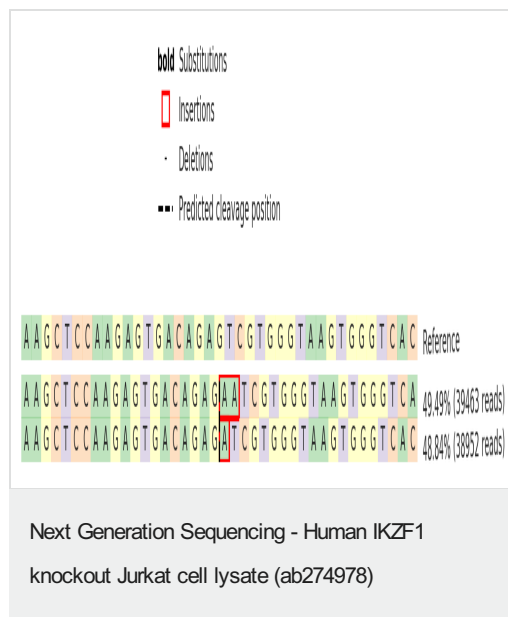
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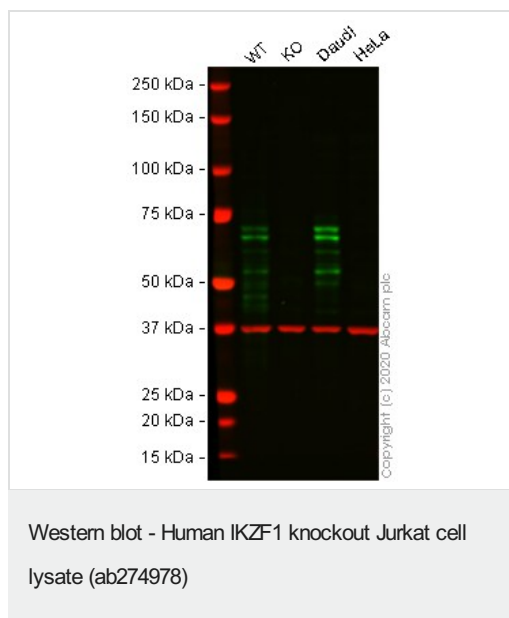
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アプリケーション	Abreviews	特記事項
WB		Use at an assay dependent concentration.

画像



Knockout achieved by CRISPR/Cas9; X = 2 bp insertion, 1 bp insertion; Frameshift: 100%



Lane 1: Wild-type Jurkat cell lysate 20 ug

Lane 2: IKZF1 knockout Jurkat cell lysate 20 ug

Lane 3: Daudi (Human Burkitt's lymphoma cell line) whole cell lysate 20 ug

Lane 4: HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate 20 ug

Lanes 1 - 4: Merged signal (red and green). Green - **ab191394** observed at 50-70 kDa. Red - loading control **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

ab191394 was shown to react with Ikaros in wild-type Jurkat cells in western blot with loss of signal observed in IKZF1 knockout cell line **ab274920** (knockout cell lysate ab274978). Wild-type and IKZF1 knockout Jurkat cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with **ab191394** and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 10000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

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