

## Product datasheet

# Anti-KAP1 antibody ab56587

★★★★☆ 2 Abreviews 1 References 画像数 2

### 製品の概要

製品名	Anti-KAP1 antibody
製品の詳細	Mouse monoclonal to KAP1
アプリケーション	適用あり: WB, IHC-P
種交差性	交差種: Human
免疫原	Recombinant fragment, corresponding to amino acids 379-524 of Human KAP1
ポジティブ・コントロール	

ウェスタン・ブロット用ポジティブコントロール  
[Recombinant Human KAP1 protein](#) >

### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
バッファー	Preservative: None PBS, pH 7.2
精製度	Protein G purified
ポリ/モノ	モノクローナル
アイソタイプ	IgG2b
軽鎖の種類	kappa

### アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab56587** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
WB	★★★★☆	
IHC-P		

## 追加情報

WB: Use at a concentration of 1-5 µg/ml.

IHC-P: Use at a concentration of 3 µg/ml.

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

## ターゲット情報

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### 機能

Nuclear corepressor for KRAB domain-containing zinc finger proteins (KRAB-ZFPs). Mediates gene silencing by recruiting CHD3, a subunit of the nucleosome remodeling and deacetylation (NuRD) complex, and SETDB1 (which specifically methylates histone H3 at 'Lys-9' (H3K9me)) to the promoter regions of KRAB target genes. Enhances transcriptional repression by coordinating the increase in H3K9me, the decrease in histone H3 'Lys-9 and 'Lys-14' acetylation (H3K9ac and H3K14ac, respectively) and the disposition of HP1 proteins to silence gene expression. Recruitment of SETDB1 induces heterochromatinization. May play a role as a coactivator for CEBPB and NR3C1 in the transcriptional activation of ORM1. Also corepressor for ERBB4. Inhibits E2F1 activity by stimulating E2F1-HDAC1 complex formation and inhibiting E2F1 acetylation. May serve as a partial backup to prevent E2F1-mediated apoptosis in the absence of RB1. Important regulator of CDKN1A/p21(CIP1). Has E3 SUMO-protein ligase activity toward itself via its PHD-type zinc finger.

### 組織特異性

Expressed in all tissues tested including spleen, thymus, prostate, testis, ovary, small intestine, colon and peripheral blood leukocytes.

### パスウェイ

Protein modification; protein sumoylation.

### 配列類似性

Belongs to the TRIM/RBCC family.

Contains 2 B box-type zinc fingers.

Contains 1 bromo domain.

Contains 1 PHD-type zinc finger.

Contains 1 RING-type zinc finger.

### ドメイン

The HP1 box is both necessary and sufficient for HP1 binding.

The PHD-type zinc finger enhances CEBPB transcriptional activity. The PHD-type zinc finger, the HP1 box and the bromo domain, function together to assemble the machinery required for repression of KRAB domain-containing proteins. Acts as an intramolecular SUMO E3 ligase for autosumoylation of bromodomain.

The RING-finger-B Box-coiled-coil/tripartite motif (RBCC/TRIM motif) is required for interaction with the KRAB domain of KRAB-zinc finger proteins. Binds four zinc ions per molecule. The RING finger and the N-terminal of the leucine zipper alpha helical coiled-coil region of RBCC are required for oligomerization.

Contains one Pro-Xaa-Val-Xaa-Leu (PxVxL) motif, which is required for interaction with chromoshadow domains. This motif requires additional residues -7, -6, +4 and +5 of the central Val which contact the chromoshadow domain.

### 翻訳後修飾

Phosphorylated upon DNA damage, probably by ATM or ATR. ATM-induced phosphorylation on Ser-824 represses sumoylation leading to the de-repression of expression of a subset of genes involved in cell cycle control and apoptosis in response to genotoxic stress. Dephosphorylation by the phosphatases, PPP1CA and PP1CB forms, allows sumoylation and expression of TRIM28 target genes.

Sumoylation/desumoylation events regulate TRIM28-mediated transcriptional repression.

Sumoylation is required for interaction with CHD3 and SETDB1 and the corepressor activity.

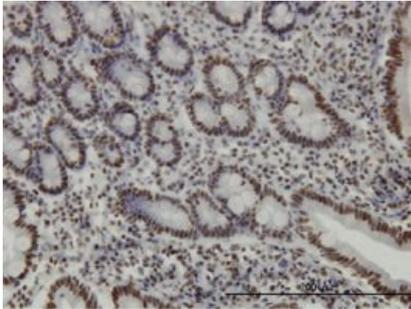
Represses and is repressed by Ser-824 phosphorylation. Enhances the TRIM28 corepressor

activity, inhibiting transcriptional activity of a number of genes including GADD45A and CDKN1A/p21. Lys-554, Lys-779 and Lys-804 are the major sites of sumoylation. In response to Dox-induced DNA damage, enhanced phosphorylation on Ser-824 prevents sumoylation and allows de-repression of CDKN1A/p21.

#### 細胞内局在

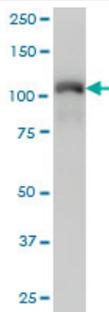
Nucleus. Associated with centromeric heterochromatin during cell differentiation through CBX1.

#### 画像



IHC-P - KAP1 antibody (ab56587)

KAP1 antibody (ab56587) used in immunohistochemistry at 3ug/ml on formalin fixed and paraffin embedded human small Intestine.



Western blot - KAP1 antibody (ab56587)

**Predicted band size : 89 kDa**  
KAP1 antibody (ab56587) at 1ug/lane + HeLa cell lysate at 25ug/lane.

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