# abcam

## Product datasheet

## Anti-Ku80 antibody ab55408

## 1 References 画像数 2

#### 製品の概要

製品名 Anti-Ku80 antibody

製品の詳細 Rabbit polyclonal to Ku80

由来種 Rabbit

特異性 ab55408 detects endogenous levels of total Ku80 protein.

アプリケーション 適用あり: IHC-P, WB, ELISA

種交差性 交差種: Human

交差が予測される動物種: Mouse

免疫原 Synthetic non-phosphopeptide derived from human Ku80 around the phosphorylation site of

threonine 714 (G-D-T-A-A).

ポジティブ・コントロール COS7 cell extracts.

#### 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

パッファー Preservative: 0.02% Sodium Azide

Constituents: 50% Glycerol, PBS (without Mg2+ and Ca2+), 150mM Sodium chloride, pH 7.4

精製度 Immunogen affinity purified

特記事項(精製) ab55408 was affinity purified from rabbit antiserum by affinity chromatography using epitope

specific immunogen.

**ポリ/モノ** ポリクローナル

アイソタイプ lgG

#### アプリケーション

Our Abpromise guarantee covers the use of ab55408 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
IHC-P		Use at an assay dependent concentration.
WB		1/500 - 1/1000. Detects a band of approximately 83 kDa (predicted molecular weight: 83 kDa).
ELISA		1/5000.

#### ターゲット情報

#### 機能

Single stranded DNA-dependent ATP-dependent helicase. Has a role in chromosome translocation. The DNA helicase II complex binds preferentially to fork-like ends of doublestranded DNA in a cell cycle-dependent manner. It works in the 3'-5' direction. Binding to DNA may be mediated by XRCC6. Involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. The XRCC5/6 dimer acts as regulatory subunit of the DNA-dependent protein kinase complex DNA-PK by increasing the affinity of the catalytic subunit PRKDC to DNA by 100-fold. The XRCC5/6 dimer is probably involved in stabilizing broken DNA ends and bringing them together. The assembly of the DNA-PK complex to DNA ends is required for the NHEJ ligation step. In association with NAA15, the XRCC5/6 dimer binds to the osteocalcin promoter and activates osteocalcin expression. The XRCC5/6 dimer probably also acts as a 5'-deoxyribose-5-phosphate lyase (5'-dRP lyase), by catalyzing the beta-elimination of the 5' deoxyribose-5-phosphate at an abasic site near double-strand breaks. XRCC5 probably acts as the catalytic subunit of 5'-dRP activity, and allows to 'clean' the termini of abasic sites, a class of nucleotide damage commonly associated with strand breaks, before such broken ends can be joined. The XRCC5/6 dimer together with APEX1 acts as a negative regulator of transcription.

### 配列類似性

Belongs to the ku80 family. Contains 1 Ku domain.

## 発生段階

Expression increases during promyelocyte differentiation.

## ドメイン

The EEXXXDDL motif is required for the interaction with catalytic subunit PRKDC and its

recruitment to sites of DNA damage.

#### 翻訳後修飾

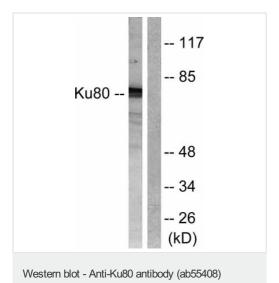
Phosphorylated on serine residues. Phosphorylation by PRKDC may enhance helicase activity.

Sumoylated.

#### 細胞内局在

Nucleus. Chromosome.

## 画像

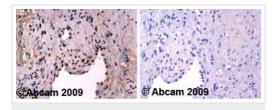


All lanes: Anti-Ku80 antibody (ab55408) at 1/500 dilution

Lane 1 : COS7 cell extract, without immunizing peptide

Lane 2 : COS7 cell extract, with immunizing peptide

**Predicted band size:** 83 kDa **Observed band size:** 83 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Ku80 antibody (ab55408)

Ab55408 staining human normal uterus myometrium tissue. Staining is localised to nuclear compartment.

Left panel: with primary antibody at 1 ug/ml. Right panel: isotype control.

Sections were stained using an automated system DAKO Autostainer Plus , at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 antigen retrieval buffer EDTA pH 9.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification

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