

Product datasheet

Human Ku80 peptide ab48059

概述

产品名称 人Ku80多肽

描述

性质 Synthetic

氨基酸序列

种属 Human

序列 C-SLAKKDEKTDLTLED

氨基酸 462 to 475

技术指标

Our [Abpromise guarantee](#) covers the use of **ab48059** in the following tested applications.

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

应用 Blocking - Blocking peptide for Anti-Ku80 antibody ([ab48013](#))

形式 Liquid

制备和贮存

稳定性和存储 Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

常规信息

功能 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 double-stranded 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.

序列相似性

Belongs to the ku80 family.

Contains 1 Ku domain.

发展阶段

Expression increases during promyelocyte differentiation.

结构域

The EEXXXDDL motif is required for the interaction with catalytic subunit PRKDC and its recruitment to sites of DNA damage.

翻译后修饰

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

细胞定位

Nucleus. Chromosome.

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