

Product datasheet

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ARG62528 anti-Ku 70 / Ku 80 antibody [162]

Package: 100 μl, 50 μl Store at: -20°C

Summary

Product Description Mouse Monoclonal antibody [162] recognizes Ku 70 / Ku 80

Tested Reactivity Hu, Ms, Rat, Mk, Xenopus laevis

Tested Application FACS, ICC/IF, IHC-P, IP, WB

Host Mouse

Clonality Monoclonal

Clone 162

Isotype IgG2a

Target Name Ku 70 / Ku 80

Species Human

Immunogen Human B cell nuclei from plasmacytoid 2p68 cells

Conjugation Un-conjugated

Alternate Names DNA repair protein XRCC6; Thyroid-lupus autoantigen; Lupus Ku autoantigen protein p70; EC 4.2.99.-;

EC 3.6.4.-; ATP-dependent DNA helicase II 70 kDa subunit; X-ray repair complementing defective repair in Chinese hamster cells 6; CTC box-binding factor 75 kDa subunit; 70 kDa subunit of Ku antigen; CTC75; 5'-deoxyribose-5-phosphate lyase Ku70; KU70; TLAA; 5'-dRP lyase Ku70; CTCBF; ML8; G22P1; X-ray

repair cross-complementing protein 6; ATP-dependent DNA helicase 2 subunit 1; Ku70

Application Instructions

Application table	Application	Dilution
	FACS	Assay-dependent
	ICC/IF	Assay-dependent
	IHC-P	Assay-dependent
	IP	Assay-dependent
	WB	Assay-dependent
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HeLa cells and tonsil tissue.	

Properties

Form Liquid

Purification Purified Antibody

Buffer 1X PBS and 0.1% Sodium azide

Preservative 0.1% Sodium azide

Concentration 0.2 mg/ml

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links GenelD: 14375 Mouse

GeneID: 2547 Human

Swiss-port # P12956 Human

Swiss-port # P23475 Mouse

Gene Symbol XRCC6

Gene Full Name X-ray repair complementing defective repair in Chinese hamster cells 6

Background The p70/p80 autoantigen is a nuclear complex consisting of two subunits with molecular masses of

approximately 70 and 80 kDa. The complex functions as a single-stranded DNA-dependent ATP-dependent helicase. The complex may be involved in the repair of nonhomologous DNA ends such as that required for double-strand break repair, transposition, and V(D)J recombination. High levels of autoantibodies to p70 and p80 have been found in some patients with systemic lupus erythematosus.

[provided by RefSeq, Jul 2008]

Function 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. Required for osteocalcin gene expression. 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. 5'-dRP lyase activity 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. [UniProt]

Research Area Cancer antibody; Gene Regulation antibody

Calculated Mw 70 kDa

PTM Phosphorylation by PRKDC may enhance helicase activity. Phosphorylation of Ser-51 does not affect

DNA repair.