

Anti-XRCC4 Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human (predicted:Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit)
Molecular Weight:	Theoretical: 38/60 kDa. Actual: 38/60 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	1. Sample: MOLT-4 (Human) Cell Lysate at 30 µg Primary: Anti-XRCC4 (TMAB-14221) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 38/60 kD Observed band size: 38/60 kD
	2. Sample: MOLT-4 (Human) Cell Lysate at 30 µg Primary: Anti-XRCC4 (TMAB-14221) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 38/60 kD Observed band size: 36 kD
Application:	WB
Recommended	WB: 1:500-2000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human XRCC4
Antigen Species:	Human
Gene ID:	7518
Uniprot ID:	Q13426

Research Background

The x-ray repair cross-complementing (XRCC) proteins are responsible for efficiently repairing and maintaining genetic stability following DNA base damage. These genes share sequence similarity with the yeast DNA repair protein Rad51. XRCC1 is a protein that facilitates the DNA base excision repair pathway by interacting with DNA ligase III and DNA polymerase to repair DNA single-strand breaks. XRCC2 and XRCC3 are both involved in maintaining chromosome stability during cell division. XRCC2 is required for efficient repair of DNA double-strand breaks by homologous recombination between sister chromatids, and XRCC3 interacts directly with Rad51 to cooperate with Rad51 during recombinational repair. XRCC4 is an accessory factor of DNA ligase IV that preferentially binds DNA with nicks or broken ends. XRCC4 binds to DNA ligase IV and enhances its joining activity, and it is also involved in V(D)J recombination. Any defect in one of the known components of the DNA repair/V(D)J

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recombination machinery (Ku-70, Ku-80, DNA-PKCS, XRCC4 and DNA ligase IV) leads to abortion of the V(D)J rearrangement process and early block in both T and B cell maturation.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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