## bsm-54131R

# [ Primary Antibody ]

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www.bioss.com.cn sales@bioss.com.cn techsupport@bioss.com.cn 400-901-9800

# **DNA Ligase IV Recombinant Rabbit mAb**

- DATASHEET -

Host: Rabbit Isotype: IgG
Clonality: Recombinant CloneNo.: 2D9
GeneID: 3981 SWISS: P49917

Target: DNA Ligase IV

**Purification:** affinity purified by Protein A

Concentration: 1mg/ml

**Storage:** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50%

Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated

freeze/thaw cycles.

**Background:** The X-ray repair cross-complementing protein XRCC4 and DNA

Ligase IV are essential for repairing double-strand breaks in DNA. These proteins form a critical complex consisting of two molecules of each protein that preferentially bind DNA with nicks or broken ends. As an obligate accessory molecule, XRCC4 binds to DNA Ligase IV and enhances its joining activity. The XRCC4/ DNA Ligase IV complex is also involved in V(D)J recombination. V(D)J recombination occurs in normal development of the adaptive immune system and involves the formation of a double-strand break intermediate. Deletions of either DNA Ligase IV or XRCC4 inhibit the completion of V(D)J recombination, resulting in a high incidence of apoptosis in the developing nervous system and a

block in B and T cell maturation.

Applications: WB (1:500-2000)

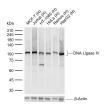
IHC-P (1:50-200) IHC-F (1:50-200) IF (1:50-200)

Reactivity: Human

Predicted MW.: 104 kDa

Subcellular Nucleus Location:

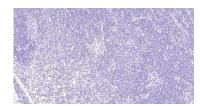
### VALIDATION IMAGES



Sample: Lane 1: Human MCF-7 cell lysates Lane 2: Human Jurkat cell lysates Lane 3: Human HT-1080 cell lysates Lane 4: Human HeLa cell lysates Lane 5: Human Ramos cell lysates Lane 6: Human HepG2 cell lysates Primary: Anti-DNA Ligase IV (bsm-54131R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 104 kDa Observed band size: 104 kDa



Paraformaldehyde-fixed, paraffin embedded Human Colon; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with DNA Ligase IV Monoclonal Antibody, Unconjugated (bsm-54131R) at 1:200 overnight at 4°C, followed by conjugation to the bs-0295G-HRP and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Human Lymph; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with DNA Ligase IV Monoclonal Antibody, Unconjugated (bsm-54131R) at 1:200 overnight at 4°C, followed by conjugation to the bs-0295G-HRP and DAB (C-0010) staining.