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XLF Antibody

#2854 Store at -20C

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 39	Source/Isotype: Rabbit	UniProt ID: #Q9H9Q4	Entrez-Gene Id: 79840
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

XLF Antibody detects endogenous levels of total XLF protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding residues surrounding Lys288 of human XLF protein. Antibodies are purified by peptide affinity chromatography.

Background

Double stranded DNA breaks (DSB's) are the most toxic of DNA lesions. They occur in response to genotoxic stress, and they are also an obligate intermediate in the V(D)J recombination events in the immune system. The mechanism by which cells deal with DSB's is known as NHEJ (non-homologous end-joining), and involves a core group of proteins that includes Ku, DNA-PK, XRCC4, and XLF (1). XLF, also known as Cernunnos, was originally discovered as a mutated protein from cells of individuals who displayed features of growth retardation, microcephaly, and immunodeficiency (2). These cells were sensitive to ionizing radiation and defective in V(D)J recombination. Exogenous expression of wild type XLF corrected these deficiencies (3), indicating that XLF is a critical component of the NHEJ response. XLF physically interacts with and may stimulate the ligase activity of XRCC4 (3).

Background References

1. Tsai, C.J. et al. (2007) *Proc Natl Acad Sci USA* 104, 7851-6.
2. Buck, D. et al. (2006) *Cell* 124, 287-99.
3. Ahnesorg, P. et al. (2006) *Cell* 124, 301-13.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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