

XLF Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10576**Specification**

XLF Antibody - Product Information

Application	WB, IP
Primary Accession	O9H9Q4
Other Accession	NP_079058.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	33337

XLF Antibody - Additional Information**Gene ID** 79840**Application & Usage**

Western blotting (1:500 - 1:2500) and Immunoprecipitation. However, the optimal concentrations should be determined individually. The antibody recognizes the XLF of human origin. Reactivity to other species has not been tested.

Other Names

XRCC4-like Factor, Cernunnos, FLJ12610

Target/Specificity

XLF

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µl affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA and 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

XLF Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

XLF Antibody - Protein Information

Name NHEJ1 {ECO:0000303|PubMed:17191205, ECO:0000312|HGNC:HGNC:25737}

Function

DNA repair protein involved in DNA non-homologous end joining (NHEJ); required for double-strand break (DSB) repair and V(D)J recombination (PubMed:16439204, PubMed:16439205, PubMed:17717001, PubMed:17317666, PubMed:17470781, PubMed:18644470, PubMed:20558749, PubMed:26100018, PubMed:18158905). Plays a key role in NHEJ by promoting the ligation of various mismatched and non-cohesive ends (PubMed:17717001, PubMed:17470781, PubMed:19056826). Together with PAXX, collaborates with DNA polymerase lambda (POL) to promote joining of non-cohesive DNA ends (PubMed:30250067, PubMed:25670504). May act in concert with XRCC5-XRCC6 (Ku) to stimulate XRCC4-mediated joining of blunt ends and several types of mismatched ends that are non-complementary or partially complementary (PubMed:16439204, PubMed:16439205, PubMed:17317666, PubMed:17470781). In some studies, has been shown to associate with XRCC4 to form alternating helical filaments that bridge DNA and act like a bandage, holding together the broken DNA until it is repaired (PubMed:22228831, PubMed:26100018, PubMed:28500754, PubMed:27437582, PubMed:21775435, PubMed:22287571, PubMed:21768349). Alternatively, it has also been shown that rather than forming filaments, a single NHEJ1 dimer interacts through both head domains with XRCC4 to promote the close alignment of DNA ends (By similarity). The XRCC4-NHEJ1/XLF subcomplex binds to the DNA fragments of a DSB in a highly diffusive manner and robustly bridges two independent DNA molecules, holding the broken DNA fragments in close proximity to one other (PubMed:28500754, PubMed:27437582). The mobility of the bridges ensures that the ends remain accessible for further processing by other repair factors (PubMed:27437582). Binds DNA in a length-dependent manner (PubMed:17317666, PubMed:18158905).

Cellular Location

Nucleus. Chromosome. Note=Localizes to site of double-strand breaks; recruitment is dependent on XRCC5-XRCC6 (Ku) heterodimer

Tissue Location

Ubiquitously expressed.

XLF Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

XLF Antibody - Images**XLF Antibody - Background**

XLF (also called Cernunnos) interacts with the XRCC4-DNA ligase IV complex to promote DNA non-homologous end-joining. It directly interacts with the XRCC4-Ligase IV complex and siRNA-mediated downregulation of XLF in human cell lines leads to radio-sensitivity and impaired DNA non-homologous end-joining. XLF is homologous to the yeast non-homologous end-joining factor Nej1.