

Anti-XLF Rabbit Monoclonal Antibody Catalog # ABO15631

Specification

Anti-XLF Rabbit Monoclonal Antibody - Product Information

Application	WB, IHC, IF, ICC, FC
Primary Accession	O9H9Q4
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

Description

Anti-XLF Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Anti-XLF Rabbit Monoclonal Antibody - Additional Information

Gene ID 79840

Other Names

Non-homologous end-joining factor 1, Protein cernunnos, XRCC4-like factor, NHEJ1
{ECO:0000303|PubMed:17191205, ECO:0000312|HGNC:HGNC:25737}

Calculated MW

38 kDa KDa

Application Details

WB 1:1000-1:5000
IHC 1:50-1:200
ICC/IF 1:50-1:200
FC 1:50

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human XLF

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-XLF Rabbit Monoclonal 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); it is required for double-strand break (DSB) repair and V(D)J recombination and is also involved in telomere maintenance (PubMed: [16439204](http://www.uniprot.org/citations/16439204) target="_blank">16439204, PubMed: [16439205](http://www.uniprot.org/citations/16439205) target="_blank">16439205, PubMed: [17317666](http://www.uniprot.org/citations/17317666) target="_blank">17317666, PubMed: [17470781](http://www.uniprot.org/citations/17470781) target="_blank">17470781, PubMed: [17717001](http://www.uniprot.org/citations/17717001) target="_blank">17717001, PubMed: [18158905](http://www.uniprot.org/citations/18158905) target="_blank">18158905, PubMed: [18644470](http://www.uniprot.org/citations/18644470) target="_blank">18644470, PubMed: [20558749](http://www.uniprot.org/citations/20558749) target="_blank">20558749, PubMed: [26100018](http://www.uniprot.org/citations/26100018) target="_blank">26100018, PubMed: [28369633](http://www.uniprot.org/citations/28369633) target="_blank">28369633). Plays a key role in NHEJ by promoting the ligation of various mismatched and non-cohesive ends (PubMed: [17470781](http://www.uniprot.org/citations/17470781) target="_blank">17470781, PubMed: [17717001](http://www.uniprot.org/citations/17717001) target="_blank">17717001, PubMed: [19056826](http://www.uniprot.org/citations/19056826) target="_blank">19056826). Together with PAXX, collaborates with DNA polymerase lambda (POLL) to promote joining of non-cohesive DNA ends (PubMed: [25670504](http://www.uniprot.org/citations/25670504) target="_blank">25670504, PubMed: [30250067](http://www.uniprot.org/citations/30250067) target="_blank">30250067). 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](http://www.uniprot.org/citations/16439204) target="_blank">16439204, PubMed: [16439205](http://www.uniprot.org/citations/16439205) target="_blank">16439205, PubMed: [17317666](http://www.uniprot.org/citations/17317666) target="_blank">17317666, PubMed: [17470781](http://www.uniprot.org/citations/17470781) target="_blank">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: [21768349](http://www.uniprot.org/citations/21768349) target="_blank">21768349, PubMed: [21775435](http://www.uniprot.org/citations/21775435) target="_blank">21775435, PubMed: [22228831](http://www.uniprot.org/citations/22228831) target="_blank">22228831, PubMed: [22287571](http://www.uniprot.org/citations/22287571) target="_blank">22287571, PubMed: [26100018](http://www.uniprot.org/citations/26100018) target="_blank">26100018, PubMed: [27437582](http://www.uniprot.org/citations/27437582) target="_blank">27437582, PubMed: [28500754](http://www.uniprot.org/citations/28500754) target="_blank">28500754). 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: [27437582](http://www.uniprot.org/citations/27437582) target="_blank">27437582, PubMed: [28500754](http://www.uniprot.org/citations/28500754) target="_blank">28500754). The mobility of the bridges ensures that the ends remain accessible for further processing by other repair factors (PubMed: [27437582](http://www.uniprot.org/citations/27437582) target="_blank">27437582). Binds DNA in a length-dependent manner (PubMed: [17317666](http://www.uniprot.org/citations/17317666) target="_blank">17317666, PubMed: [18158905](http://www.uniprot.org/citations/18158905) target="_blank">18158905).

Cellular Location

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

Tissue Location

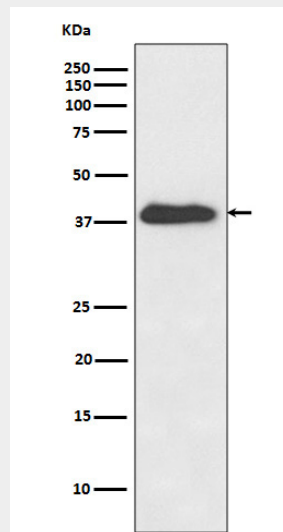
Ubiquitously expressed.

Anti-XLF Rabbit Monoclonal 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](#)

Anti-XLF Rabbit Monoclonal Antibody - Images



Western blot analysis of XLF expression in Jurkat cell lysate.