

# XLF Antibody

✓ 100 µl  
(10 western blots)

**Orders** ■ 877-616-CELL (2355)  
orders@cellsignal.com  
**Support** ■ 877-678-TECH (8324)  
info@cellsignal.com  
**Web** ■ www.cellsignal.com

rev. 04/05/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications W, IP Endogenous	Species Cross-Reactivity* H	Molecular Wt. 39 kDa	Source Rabbit**
-------------------------------------	--------------------------------	-------------------------	--------------------

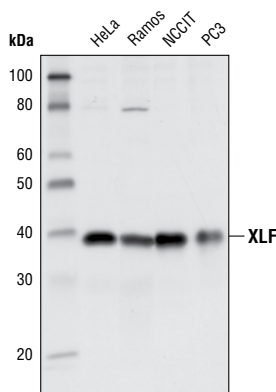
**Background:** Double stranded DNA breaks (DSB's) are the most toxic of DNA lesions. They occur in response to genotoxic stress, and they are also an obligate intermediate in the V(D)J recombination events in the immune system. The mechanism by which cells deal with DSB's is known as NHEJ (non-homologous 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).

**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 to amino acids near the carboxy terminus of human XLF. Antibodies are purified by peptide affinity chromatography.

**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.



Western blot analysis of extracts of various cell lines using XLF Antibody.

**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.

**\*Species cross-reactivity is determined by western blot.**

**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunoprecipitation	1:100

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**

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

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.