

Datasheet for ABIN968566
anti-XRCC4 antibody (AA 53-168)[4 Images](#)[3 Publications](#)[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	XRCC4
Binding Specificity:	AA 53-168
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This XRCC4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human XRCC4 aa. 53-168
Clone:	4-XRCC4
Isotype:	IgG2b
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	XRCC4
Alternative Name:	XRCC4 (XRCC4 Products)
Background:	<p>DNA double-strand breaks (DSB) are generated during intrinsic eukaryotic DNA recombination events such as assembly of antigen receptor genes and meiotic and mitotic recombination. DSB repair proteins are also required to repair breaks induced by extrinsic factors such as ionizing radiation and mutagenic chemicals. DNA-PKcs, Ku70/Ku80, DNA ligase IV, and X-Ray Cross Complementation group 4 (XRCC4) are DSB proteins involved in both V(D)J recombination and DNA double-stranded break repair. XRCC4 activates DNA ligase IV and cells deficient in XRCC4 inefficiently form coding joints and signal joints during V(D)J recombination. XRCC4 contains a C-terminal nuclear localization sequence (NLS) and multiple phosphorylation sites, binds DNA, and is an effective substrate for DNA-PK. Phosphorylation of XRCC4 has no effect on its interactions with DNA ligase IV or end-joining activity, but can inhibit its DNA binding activity. Mice deficient in XRCC4 exhibit defects in lymphogenesis and apoptotic death of postmitotic neurons during neurogenesis. Thus, XRCC4 is a ubiquitous protein involved in DNA end joining during DNA recombination and repair, which is critical for cell growth and survival.</p> <p>Synonyms: X-Ray Cross Complementation group 4</p>
Molecular Weight:	55 kDa
Pathways:	DNA Damage Repair , Production of Molecular Mediator of Immune Response

Application Details

Comment:	Related Products: ABIN968535, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

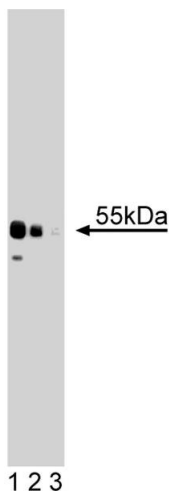
Handling

Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

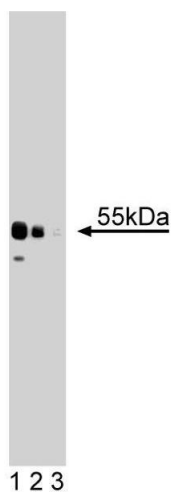
Product cited in:	<p>Gao, Sun, Frank, Dikkes, Fujiwara, Seidl, Sekiguchi, Rathbun, Swat, Wang, Bronson, Malynn, Bryans, Zhu, Chaudhuri, Davidson, Ferrini, Stamato, Orkin, Greenberg, Alt: "A critical role for DNA end-joining proteins in both lymphogenesis and neurogenesis." in: Cell, Vol. 95, Issue 7, pp. 891-902, (1999) (PubMed).</p> <p>Modesti, Hesse, Gellert: "DNA binding of Xrcc4 protein is associated with V(D)J recombination but not with stimulation of DNA ligase IV activity." in: The EMBO journal, Vol. 18, Issue 7, pp. 2008-18, (1999) (PubMed).</p> <p>Li, Otevrel, Gao, Cheng, Seed, Stamato, Taccioli, Alt: "The XRCC4 gene encodes a novel protein involved in DNA double-strand break repair and V(D)J recombination." in: Cell, Vol. 83, Issue 7, pp. 1079-89, (1996) (PubMed).</p>
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Images



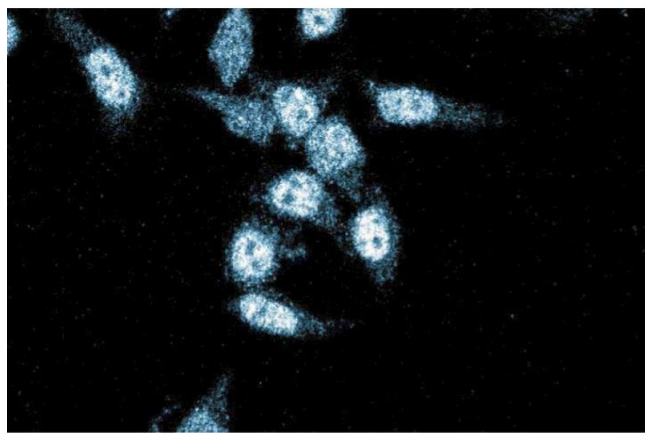
Western Blotting

Image 1.



Western Blotting

Image 2. Western blot analysis of XRCC4 on a HeLa cell lysate (Human cervical epitheloid carcinoma, ATCC CCL-2.2). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-human XRCC4 antibody.



Immunofluorescence

Image 3. Immunofluorescence staining of HeLa cells (Human cervical epitheloid carcinoma, ATCC CCL-2.2).

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN968566.