

Datasheet for 200-901-MG5**XRCC1 Antibody****Overview**

Description:	Anti-XRCC1 (CHICKEN) Antibody - 200-901-MG5
Item No.:	200-901-MG5
Size:	100 µg
Applications:	IF, WB
Reactivity:	Human, Mouse
Host Species:	Chicken

Product Details

Background:	XRCC1 (X-Ray Repair Cross Complementing 1) is involved in the efficient repair of DNA single-strand breaks formed by exposure to ionizing radiation and alkylating agents. This protein interacts with DNA ligase III, polymerase beta and poly (ADP-ribose) polymerase to participate in the base excision repair pathway. It may play a role in DNA processing during meiosis and recombination in germ cells. A rare microsatellite polymorphism in this gene is associated with cancer in patients of varying radiosensitivity. Diseases associated with XRCC1 include Spinocerebellar Ataxia, Autosomal Recessive 26 and Gastric Cardia Carcinoma. Anti-XRCC1 Antibody is useful for researchers interested in Cancer research and DNA repair.
Synonyms:	Chicken Anti-X-Ray Repair Cross Complementing 1 Antibody, X-Ray Repair Complementing Defective Repair In Chinese Hamster Cells 1, X-Ray Repair Cross-Complementing Protein 1, DNA Repair Protein XRCC1, SCAR26, RCC
Host Species:	Chicken
Clonality:	Polyclonal
Format:	IgY

Target Details

Gene Name:	XRCC1
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-XRCC1 antibody was prepared from eggs of chickens laid after repeated immunizations with a synthetic peptide corresponding to a N-Terminal portion of human XRCC1 conjugated to Keyhole Limpet Hemocyanin (KLH). A BLAST analysis was used to suggest cross-reactivity with the antigen based on 100% homology with the immunizing sequence to human and 91% to mouse, rat, and Chinese hamster.
Purity/Specificity:	This purified antibody is directed against human XRCC1. This product is an IgY fraction antibody purified from monospecific chicken egg yolks by a multi-step process which includes selective precipitation and salt fractionation followed by extensive dialysis against the buffer stated above.
Relevant Links:	<ul style="list-style-type: none">• UniProtKB - P18887• NCBI - NP_006288.2• GeneID - 7515

Application Details

Tested Applications:	IF, WB
Application Note:	Anti-XRCC1 Antibody has been tested in immunofluorescence and western blot. Expect a band at ~69.5kDa in western blot using appropriate tissues and lysates. Positive control used: U2OS, MOLT4, Jurkat, and NIH-3T3 in WB. U2OS in Immunofluorescence.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
IF:	10 µg/mL
WB:	1:500-1:1000

Formulation

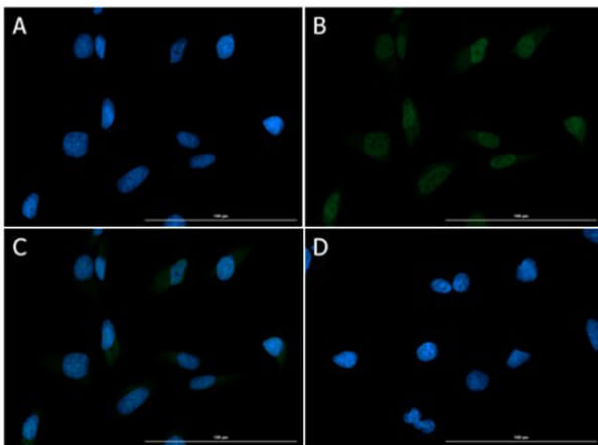
Physical State:	Liquid (sterile filtered)
Concentration:	0.93 mg/ml by UV absorbance at 280 nm
Buffer:	0.002 M Sodium Phosphate, 0.15 M Sodium Chloride, pH 7.0
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
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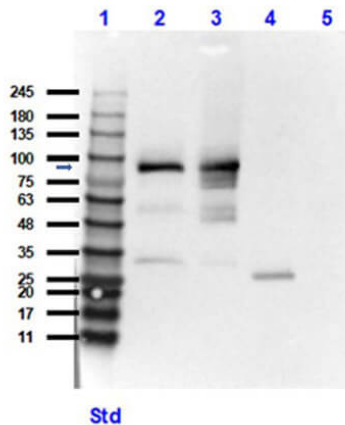
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



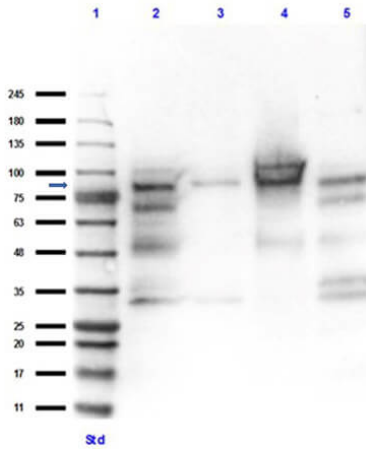
Immunofluorescence Microscopy

Immunofluorescence of Chicken Anti-XRCC1 Antibody. Cells: U2OS cells. Fixative: 100% MeOH. Permeabilization: 0.3% Triton X-100. Primary Antibody: Anti-XRCC1 at 10µg/mL overnight at 2-8°C. Secondary Antibody: Donkey Anti-Chicken IgG DyLight™488 (p/n 603-141-126) at 5µg/mL for 60mins at RT. Nuclear Counterstain: DAPI. Staining: (A) DAPI, (B) Anti-XRCC1 and DyLight™488, (C) Merge A+B, (D) secondary only. Expected Localization: Nucleus and Nucleoplasm.



Western Blot

Western Blot of Chicken Anti-XRCC1 Antibody. Lane 1: Opal Pre-Stained Molecular Weight Marker (p/n MB-210-0500). Lane 2: U-2OS whole cell lysate [+] (p/n W09-001-374). Lane 3: MOLT-4 whole cell lysate [+] (p/n W09-001-GK2). Lane 4: Human testis whole tissue lysate [+]. Lane 5: Mouse liver, adult, whole tissue lysate [-] (p/n W10-000-T020). Load: 35µg/lane. Primary Antibody: Anti-XRCC1 at 5µg/mL overnight at 2-8°C. Secondary Antibody: Goat anti-Chicken IgG HRP (p/n 603-103-002) at 1:40,000 for 60min at RT. Expected MW: ~70kDa, Isopeptide bond, Phosphoprotein. Observed MW: at arrow ~90kDa. Consistent with other commercial antibodies detecting bands at ~80-95kDa.

**Western Blot**

Western Blot of Chicken Anti-XRCC1 Antibody. Lane 1: Opal Pre-Stained Molecular Weight Marker (p/n MB-210-0500).

Lane 2: XRCC1 overexpressing HEK293T lysate [+] (10 μ g).

Lane 3: HEK293T lysate [+] (W09-001-GX5). Lane 4: Jurkat

whole cell lysate [+] (W09-001-370). Lane 5: NIH-3T3 whole

cell lysate [+] (W10-000-358). Load: 10 μ g/lane. Primary

Antibody: Anti-XRCC1 at 1:500 overnight at 2-8 $^{\circ}$ C.

Secondary Antibody: Goat anti-Chicken IgG HRP (p/n 603-103-002) at 1:40,000 for 60min at RT. Expected MW:

~70kDa, Isopeptide bond, Phosphoprotein. Observed MW:

~70, ~80kDa arrow.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.