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www.rockland.com
tech@rockland.com
+1 484.791.3823

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 meiogenesis 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:	• 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

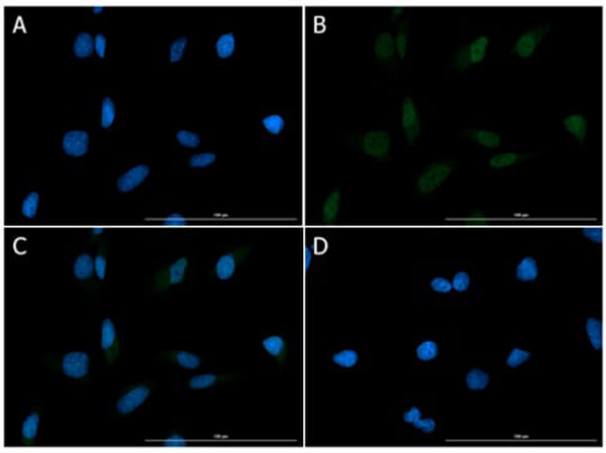
Physical State:	Liquid (sterile filtered)
Concentration:	0.93 mg/ml by UV absorbance at 280 nm
Buffer:	0.002 M Sodium Phosphate, 0.15 M Sodium Chloride, pH 7.0
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

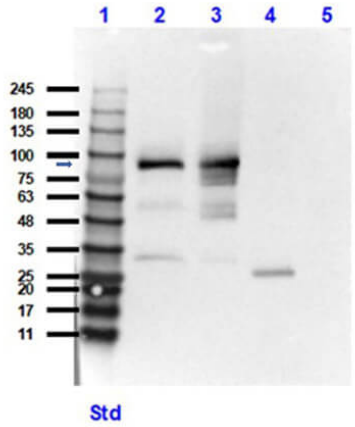
Shipping Condition:	Dry Ice

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.

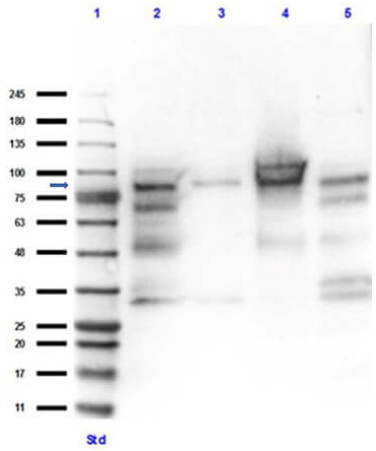
Images



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 [+] (10µg). 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: 10µg/lane. Primary Antibody: Anti-XRCC1 at 1:500 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: ~70, ~80kDa arrow.

Disclaimer

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