

# Product Datasheet

## Rad51D Antibody (5B3/6) - BSA Free NB100-178

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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**NB100-178**

Rad51D Antibody (5B3/6) - BSA Free

Product Information	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	This product is unpurified. The exact concentration of antibody is not quantifiable.
<b>Storage</b>	Store at 4C. Do not freeze.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	5B3/6
<b>Preservative</b>	0.1% Sodium Azide
<b>Isotype</b>	IgG1
<b>Purity</b>	Unpurified
<b>Buffer</b>	Ascites
<b>Target Molecular Weight</b>	40 kDa

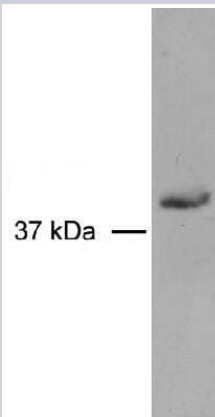
Product Description	
<b>Description</b>	Novus Biologicals Mouse Rad51D Antibody (5B3/6) - BSA Free (NB100-178) is a monoclonal antibody validated for use in WB and ICC/IF. Anti-Rad51D Antibody: Cited in 3 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Mouse
<b>Gene ID</b>	5892
<b>Gene Symbol</b>	RAD51D
<b>Species</b>	Human, Mouse (Negative)
<b>Reactivity Notes</b>	This antibody does not work on mouse.
<b>Immunogen</b>	His-tagged human Rad51D, overexpressed in E. coli. [UniProt# O75771]

Product Application Details	
<b>Applications</b>	Western Blot, Immunocytochemistry/ Immunofluorescence
<b>Recommended Dilutions</b>	Western Blot 1:1000, Immunocytochemistry/ Immunofluorescence 1:100-1:500
<b>Application Notes</b>	This Rad51D (5B3/6) antibody is useful for Immunocytochemistry/Immunofluorescence and Western blot, where a band can be seen at ~40 kDa. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

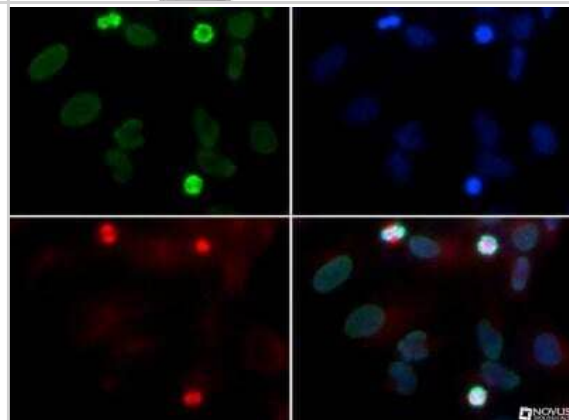


## Images

Western Blot: Rad51D Antibody (5B3/6) [NB100-178] - Rad51D detected in HEK293 lysates using a 1:1,000 dilution of NB 100-178 (purified). Photo courtesy of B.T. Bennett & K. Knight of University of Massachusetts Medical School



Immunocytochemistry/Immunofluorescence: Rad51D Antibody (5B3/6) [NB100-178] - RAD51D antibody was tested in HeLa cells with FITC (green). Nuclei and alpha-tubulin were counterstained with Dapi (blue) and Dylight 550 (red).



## Publications

Shammas MA, Shmookler Reis RJ, Koley H et al. Dysfunctional homologous recombination mediates genomic instability progression in myeloma. *Blood* 2009;113(10):2290-2297 [PMID: 19050310] (ICC/IF, Human)

Hinz, JM et al. Repression of mutagenesis by Rad51D-mediated homologous recombination. *Nucleic Acids Res*;34(5):1358-68. 2006-03-06 [PMID: 16522646]

Fan, R et al. Defective DNA strand break repair after DNA damage in prostate cancer cells: implications for genetic instability and prostate cancer progression. *Cancer Res*;64(23):8526-33. 2004-12-01 [PMID: 15574758] (WB, Human)

## Procedures

### Western Blot protocol for Rad51D Antibody (NB100-178)

Rad51D Antibody (5B3/6):

Western Blot

1. Preparation of samples for loading gel: Heat ~50-80ug of sample containing laemmli loading dye (containing SDS) at 90C for ~2 minutes.
2. Load sample onto a 10% Tris-HCL gel (Bio-Rad pre-cast) and run for ~30 minutes at 200V (or until dye front reaches bottom of gel).
3. Place gel in transfer buffer for 10 minutes (192mM Glycine, 25mM Tris-HCL, 20% Methanol). Pre-soak two pieces of Whatman paper and PVDF, as well.

NOTE: The PVDF should be soaked in CH3OH for ~ 1minute, rinsed in ddH2O and then placed in transfer buffer.

4. Transfer the protein from the gel to the membrane using a semi-dry transfer apparatus. Run for 20 minutes at 20V.
5. Block non-specific proteins with blocking buffer #1 (10mM Tris-HCL pH 8.0, 300mM NaCL, 0.025% Tween 20)for 10 minutes. Then continue blocking in blocking buffer #2 (buffer #1 + 15% nonfat dry milk)for an additional hour, gently rocking at room temperature (RT) or overnight at 4C.
6. Dilute the primary antibody (anti-Rad51D, NB 100-178) in antibody dilution buffer (blocking buffer #1 + 2% milk).
7. Wash the membrane briefly with some blocking buffer #1 and then add your diluted primary antibody.
8. Incubate the primary for 1 hour at room temperature, gently rocking. Again this can be done overnight at 4C.
9. Wash 3X with blocking buffer #1 for 10 minutes, each, gently rocking.
10. Incubate the diluted secondary antibody (anti-mouse IgG conjugated to HRP), diluted in antibody dilution buffer, for 1 hour at room temperature, gently rocking.
11. Wash 2X with blocking buffer #1 for 10 minutes, each, gently rocking. Wash 1X with blocking buffer #1 for 30 minutes, gently rocking.
12. Develop membrane with your chemiluminescent substrate.

NOTE: HEK 293 and MCF-7 whole cell extracts have been used as positive controls for this antibody.





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### **Products Related to NB100-178**

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NBL1-15121	Rad51D Overexpression Lysate
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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