Human Nbs1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1573

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Nbs1 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Nbs1 Pro498-Arg754 Accession # O60934
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

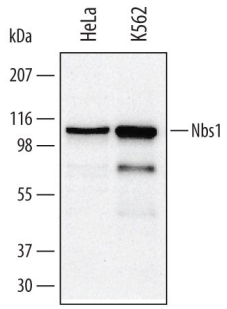
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below
Immunoprecipitation	2 µg/500 µg cell lysate	HeLa human cervical epithelial carcinoma cell line and K562 human chronic myelogenous leukemia cell line, see our available Western blot detection antibodies
Simple Western	20 µg/mL	See Below
Knockout Validated	Nbs1 is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in Nbs1 knockout HeLa cell line.	

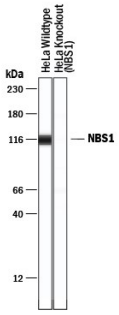
DATA

Western Blot



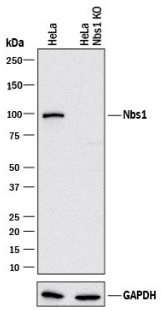
Detection of Human Nbs1 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line and K562 human chronic myelogenous leukemia cell line. PVDF membrane was probed with 0.5 µg/mL of Goat Anti-Human Nbs1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1573) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # Catalog # HAF017). A specific band was detected for Nbs1 at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human Nbs1 by Simple Western™. Simple Western lane view shows lysates of HeLa human cervical epithelial carcinoma parental cell line and Nbs1 knockout HeLa cell line (KO), loaded at 0.2 mg/mL. A specific band was detected for Nbs1 at approximately 115 kDa (as indicated) in the HeLa parental cell line using 20 µg/mL of Goat Anti-Human Nbs1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1573) . This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

Knockout Validated



Western Blot Shows Human Nbs1 Specificity by Using Knockout Cell Line. Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and Nbs1 knockout HeLa cell line (KO). PVDF membrane was probed with 0.25 µg/mL of Goat Anti-Human Nbs1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1573) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # Catalog # HAF017). A specific band was detected for Nbs1 at approximately 95 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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Human Nbs1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1573

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The Nijmegen Breakage Syndrome 1 (Nbs1) protein is a member of the Mre11/Rad50/Nbs1 (MRN) protein complex that binds to DNA double-strand breaks in cells exposed to DNA damaging agents. In addition, the MRN complex colocalizes with replication forks during DNA replication. The MRN complex plays an important role in routine cell cycle progression and genotoxic stress responses by facilitating DNA repair. In fact, mutation of the *nbs1* gene and resultant loss of Nbs1 protein expression in humans results in the chromosomal instability disease, Nijmegen Breakage Syndrome.

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