

53BP1 Polyclonal Antibody, DyLight™ 488

Catalog NumberPA5-22759

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Bat, Bovine, Dog, Human, Mouse, Rodent, Rat
Host/Isotope	Rabbit / IgG		
Class	Polyclonal	Tested Applications	
Type	Antibody	Flow Cytometry (Flow)	Assay-Dependent
Immunogen	The epitope recognized by this antibody maps to a region between residues 1925 and the C-terminus (residue 1972) of human tumor protein p53 binding protein 1 using the numbering given in entry NP_005648.1.	Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent
		Immunohistochemistry (Paraffin) (IHC (P))	Assay-Dependent
Conjugate	DyLight™ 488	Western Blot (WB)	1:200-1:10,000
Form	Liquid	Immunocytochemistry (ICC/IF)	1:200-1:1,000
Concentration	0.5 mg/mL	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Purification	Antigen affinity chromatography		
Storage buffer	50mM sodium borate		
Contains	0.05% sodium azide		
Storage Conditions	4° C, store in dark		

Product specific information

Human samples have been tested in Western Blot and ICC/IF, and mouse samples have been tested in ICC/IF only. Suggested positive control: U205, 293T, and MO59K cell lysates and MEF lysates .

Background/Target Information

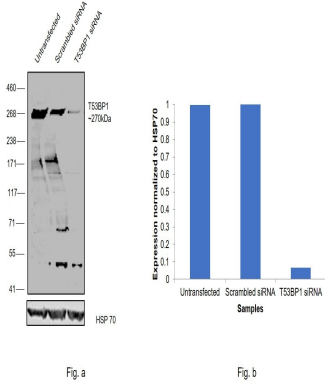
53BP1 (P53-binding protein 1) plays a critical role in tumor suppression and is a putative substrate of ATM kinase. Upon DNA damage, 53BP1 is phosphorylated and localizes to the presumptive sites of damage, specifically, double-strand breaks. 53BP1 may have a role in checkpoint signaling during mitosis, enhances TP53-mediated transcriptional activation, and participates in DNA repair by maintaining genomic stability.

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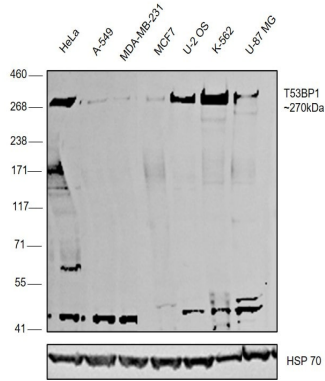


53BP1 Antibody (PA5-22759)

Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. HeLa cells were transfected with TP53-binding protein 1 siRNA and decrease in signal intensity was observed in Western Blot application using Anti-53BP1 Polyclonal Antibody, DyLight 488 (Product # PA5-22759). {KD}

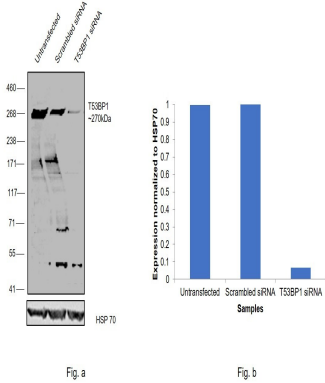
53BP1 Antibody (PA5-22759) in WB

Western blot was performed using Anti-53BP1 Polyclonal Antibody, DyLight 488 (Product # PA5-22759) and a ~270kDa band corresponding to TP53-binding protein 1 was observed across cell lines tested. Nuclear enriched extracts (30 µg lysate) of HeLa (Lane 1), A549 (Lane 2), MDA-MB-231 (Lane 3), MCF7 (Lane 4), U-2 OS (Lane 5), K-562 (Lane 6), U-87 MG (Lane 7) were electrophoresed using NuPAGE™ 3-8% Tris-Acetate Protein Gel (Product # EA0378BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # LC2001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:5000) and detected by chemiluminescence with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036, 1:4000) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005). A streak like pattern was observed in the positive cell lines as expected of 53BP1 target.



53BP1 Antibody (PA5-22759) in WB

Knockdown of TP53-binding protein 1 was achieved by transfecting HeLa with TP53-binding protein 1 specific siRNAs (Silencer® select Product # s69255,s69256). Western blot analysis (Fig. a) was performed using Nuclear enriched extracts from the TP53-binding protein 1 knockdown cells (lane 3), non-targeting scrambled siRNA transfected cells (lane 2) and untransfected cells (lane 1). The blot was probed with 53BP1 Polyclonal Antibody, DyLight 488 (Product # PA5-22759, 1:5000) and Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A27036, 1:4000). Densitometric analysis of this western blot is shown in histogram (Fig. b). Decrease in signal upon siRNA mediated knock down confirms that antibody is specific to TP53-binding protein 1. A streak like pattern was observed in the positive cell lines as expected of 53BP1 target.



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