Datasheet for ABIN6256578

anti-TP53BP1 antibody (pThr543)

2 Images

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Overview

Quantity:	100 µL
Target:	TP53BP1
Binding Specificity:	pThr543
Reactivity:	Human, Monkey
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This TP53BP1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	A synthesized peptide derived from human Phospho-53BP1 (Thr543)
Isotype:	IgG
Specificity:	Phospho-53BP1 (Thr543) Antibody detects endogenous levels of 53BP1 only when phosphorylated at Thr543
Cross-Reactivity:	Human, Monkey
Purification:	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.

Target Details

Target:	TP53BP1

Target Details

Alternative Name:	53BP1 (TP53BP1 Products)
Background:	Description: Double-strand break (DSB) repair protein involved in response to DNA damage, telomere dynamics and class-switch recombination (CSR) during antibody genesis (PubMed:12364621, PubMed:22553214, PubMed:23333306, PubMed:17190600, PubMed:21144835, PubMed:28241136). Plays a key role in the repair of double-strand DNA breaks (DSBs) in response to DNA damage by promoting non-homologous end joining (NHEJ)-mediated repair of DSBs and specifically counteracting the function of the homologous recombination (HR) repair protein BRCA1 (PubMed:22553214, PubMed:23727112, PubMed:23333306). In response to DSBs, phosphorylation by ATM promotes interaction with RIF1 and dissociation from NUDT16L1/TIRR, leading to recruitment to DSBs sites (PubMed:28241136). Recruited to DSBs sites by recognizing and binding histone H2A monoubiquitinated at 'Lys-15' (H2AK15Ub) and histone H4 dimethylated at 'Lys-20' (H4K20me2), two histone marks that are present at DSBs sites (PubMed:23760478, PubMed:28241136, PubMed:17190600). Required for immunoglobulin class-switch recombination (CSR) during antibody genesis, a process that involves the generation of DNA DSBs (PubMed:23345425). Participates to the repair and the orientation of the broken DNA ends during CSR (By similarity). In contrast, it is not required for classic NHEJ and V(D)J recombination (By similarity). Promotes NHEJ of dysfunctional telomeres via interaction with PAXIP1 (PubMed:23727112). Gene: TP53BP1
Molecular Weight:	220kDa
Gene ID:	7158
UniProt:	Q12888
Pathways:	DNA Damage Repair

Application Details

Application Notes:	WB 1:1000-3000, IF/ICC 1:100-1:500
Restrictions:	For Research Use only

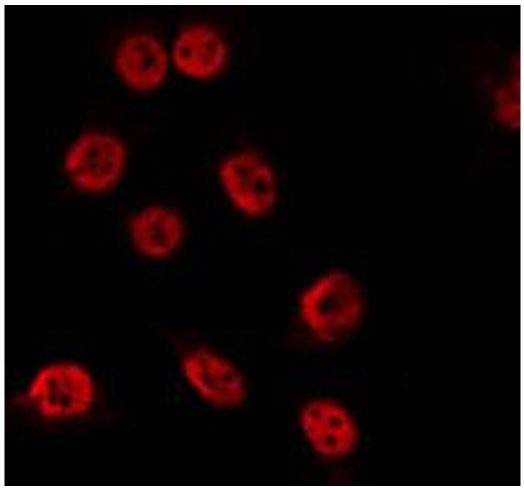
Handling

Format:	Liquid
Concentration:	1 mg/mL

Handling

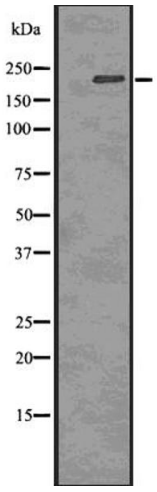
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C.Stable for 12 months from date of receipt
Expiry Date:	12 months

Images



Immunofluorescence (fixed cells)

Image 1. ABIN6274059 staining COS7 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



Western Blotting

Image 2. Western blot analysis of Phospho-53BP1 (Thr543) using COLO205 whole cell lysates