# .-online.com antibodies

# Datasheet for ABIN6256686 anti-ABL1 antibody (pTyr245)

4 Images

1 Publication



#### Overview

Quantity:	100 μL
Target:	ABL1
Binding Specificity:	pTyr245
Reactivity:	Human, Mouse, Rat, Monkey
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ABL1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

## Product Details

Immunogen:	A synthesized peptide derived from human c-Abl around the phosphorylation site of Tyrosine 245
lsotype:	lgG
Specificity:	Phospho-c-Abl (Tyr245) Antibody detects endogenous levels of c-Abl only when phosphorylated at Tyrosine 245
Cross-Reactivity:	Human, Monkey, Mouse (Murine), Rat (Rattus)
Purification:	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Target Details	

### l arget Details

Target:	ABL1	
	Order at www.antibodies-online.com   www.antikoerper-online.de   www.anticorps-enligne.fr   www.antibodies-online.cn International: +49 (0)241 95 163 153   USA & Canada: +1 877 302 8632   support@antibodies-online.com	

Page 1/4 | Product datasheet for ABIN6256686 | 09/10/2023 | Copyright antibodies-online. All rights reserved.

Target Details	
Alternative Name:	c-Abl (ABL1 Products)
Background:	Description: Non-receptor tyrosine-protein kinase that plays a role in many key processes linked
	to cell growth and survival such as cytoskeleton remodeling in response to extracellular stimuli,
	cell motility and adhesion, receptor endocytosis, autophagy, DNA damage response and
	apoptosis. Coordinates actin remodeling through tyrosine phosphorylation of proteins
	controlling cytoskeleton dynamics like WASF3 (involved in branch formation), ANXA1 (involved
	in membrane anchoring), DBN1, DBNL, CTTN, RAPH1 and ENAH (involved in signaling), or
	MAPT and PXN (microtubule-binding proteins). Phosphorylation of WASF3 is critical for the
	stimulation of lamellipodia formation and cell migration. Involved in the regulation of cell
	adhesion and motility through phosphorylation of key regulators of these processes such as
	BCAR1, CRK, CRKL, DOK1, EFS or NEDD9. Phosphorylates multiple receptor tyrosine kinases
	and more particularly promotes endocytosis of EGFR, facilitates the formation of
	neuromuscular synapses through MUSK, inhibits PDGFRB-mediated chemotaxis and
	modulates the endocytosis of activated B-cell receptor complexes. Other substrates which are
	involved in endocytosis regulation are the caveolin (CAV1) and RIN1. Moreover, ABL1 regulates
	the CBL family of ubiquitin ligases that drive receptor down-regulation and actin remodeling.
	Phosphorylation of CBL leads to increased EGFR stability. Involved in late-stage autophagy by
	regulating positively the trafficking and function of lysosomal components. ABL1 targets to
	mitochondria in response to oxidative stress and thereby mediates mitochondrial dysfunction
	and cell death. In response to oxidative stress, phosphorylates serine/threonine kinase PRKD2
	at 'Tyr-717' (PubMed:28428613). ABL1 is also translocated in the nucleus where it has DNA-
	binding activity and is involved in DNA-damage response and apoptosis. Many substrates are
	known mediators of DNA repair: DDB1, DDB2, ERCC3, ERCC6, RAD9A, RAD51, RAD52 or WRN.
	Activates the proapoptotic pathway when the DNA damage is too severe to be repaired.
	Phosphorylates TP73, a primary regulator for this type of damage-induced apoptosis.
	Phosphorylates the caspase CASP9 on 'Tyr-153' and regulates its processing in the apoptotic
	response to DNA damage. Phosphorylates PSMA7 that leads to an inhibition of proteasomal
	activity and cell cycle transition blocks. ABL1 acts also as a regulator of multiple pathological
	signaling cascades during infection. Several known tyrosine-phosphorylated microbial proteins
	have been identified as ABL1 substrates. This is the case of A36R of Vaccinia virus, Tir
	(translocated intimin receptor) of pathogenic E.coli and possibly Citrobacter, CagA (cytotoxin-
	associated gene A) of H.pylori, or AnkA (ankyrin repeat-containing protein A) of
	A.phagocytophilum. Pathogens can highjack ABL1 kinase signaling to reorganize the host actin
	cytoskeleton for multiple purposes, like facilitating intracellular movement and host cell exit.
	Finally, functions as its own regulator through autocatalytic activity as well as through

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 2/4 | Product datasheet for ABIN6256686 | 09/10/2023 | Copyright antibodies-online. All rights reserved.

	phosphorylation of its inhibitor, ABI1. Regulates T-cell differentiation in a TBX21-dependent manner. Phosphorylates TBX21 on tyrosine residues leading to an enhancement of its transcriptional activator activity (By similarity). Gene: ABL1
Molecular Weight:	135kDa
Gene ID:	25
UniProt:	P00519
Pathways:	Apoptosis, Regulation of Muscle Cell Differentiation, Platelet-derived growth Factor Receptor Signaling, Lipid Metabolism
Application Details	
Application Notes:	WB 1:500-1:2000 IF/ICC 1:100-1:500
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Concentration:	1 mg/mL
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:	should be handled by trained staff only. -20 °C
Storage: Storage Comment:	should be handled by trained staff only. -20 °C Store at -20 °C.Stable for 12 months from date of receipt
Storage: Storage Comment: Expiry Date:	should be handled by trained staff only.   -20 °C   Store at -20 °C.Stable for 12 months from date of receipt   12 months
Storage: Storage Comment: Expiry Date: Publications	should be handled by trained staff only. -20 °C Store at -20 °C.Stable for 12 months from date of receipt 12 months

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 3/4 | Product datasheet for ABIN6256686 | 09/10/2023 | Copyright antibodies-online. All rights reserved.

pp. e1800047, (2018) (PubMed).

## Images



# kDa 1 2 250-150-100-75-50-37-25-20-15-

#### Immunohistochemistry

**Image 1.** ABIN6267254 at 1/200 staining human brain tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22° C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

#### Western Blotting

**Image 2.** Western blot analysis of c-Abl phosphorylation expression in Insulin treated K562 whole cell lysates,The lane on the left is treated with the antigen-specific peptide.



#### Immunofluorescence (fixed cells)

**Image 3.** ABIN6267254 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.

Please check the product details page for more images. Overall 4 images are available for ABIN6256686.

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 4/4 | Product datasheet for ABIN6256686 | 09/10/2023 | Copyright antibodies-online. All rights reserved.