G-Biosciences Image not found or type unknown

Immunotag™ Phospho-Abl (Tyr412) Antibody

Antibody Specification

Catalog No.	ITA0812
Product Description	Immunotag™ Phospho-Abl (Tyr412) Antibody
Size	100 µg, 200 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	Phospho-Abl (Tyr412)
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC,IF/ICC,ELISA
Recommended Dilution	WB 1:500-1:2000 IHC 1:50-1:200, IF/ICC 1:100-1:500
Concentration	1 mg/ml
Reactive Species	Human,Mouse
Host Species	Rabbit
Immunogen	A synthesized peptide derived from human Abl around the phosphorylation site of Tyrosine 412
Specificity	Phospho-Abl (Tyr412) Antibody detects endogenous levels of Abl only when phosphorylated at Tyrosine 412
Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt
Gene Name	ABL1
Accession No.	P00519/P42684

Antibody Specification

Alternate Names	Abelson murine leukemia viral oncogene homolog 1; Abelson tyrosine protein kinase 1; Abl 1; ABL; ABL proto oncogene 1 non receptor tyrosine kinase; ABL1; ABL1_HUMAN; bcr/abl; bcr/c abl oncogene protein; c ABL; c abl oncogene 1 non receptor tyrosine kinase; c abl oncogene 1 receptor tyrosine kinase; c ABL1; JTK7; p150; Proto oncogene tyrosine protein kinase ABL1; Proto-oncogene c-Abl; Tyrosine-protein kinase ABL1; v abl Abelson murine leukemia viral oncogene homolog 1; v abl; Abelson murine leukemia viral oncogene homolog 2; Abelson related gene protein; Abelson tyrosine-protein kinase 2; Abelson-related gene protein; ABL2; ABL2_HUMAN; ABLL; ARG; Tyrosine kinase ARG; Tyrosine protein kinase ABL2; Tyrosine-protein kinase ARG; v abl Abelson murine leukemia viral oncogene homolog 2;
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 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).
Cell Pathway/ Category	Primary Polyclonal Antibody

Antibody Specification

Protein MW	135kDa
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.