Rabbit ALK Polyclonal Antibody | anti-ALK antibody

Phospho-ALK (Tyr1096) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329493	**Rabbit**	**Human, Mouse, RatPredicted Reactivity: Pig (100%), Zebrafish (91%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%)**	**ELISA, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

ALK; Polyclonal Antibody; Phospho-ALK (Tyr1096) Antibody; Alk; ALK tyrosine kinase receptor; ALK/EML4 fusion gene; included; ALK/NPM1 fusion gene; ALK_HUMAN; anaplastic lymphoma kinase (Ki-1); Anaplastic lymphoma kinase; Anaplastic lymphoma kinase Ki1; anaplastic lymphoma receptor tyrosine kinase; CD 246; CD246; CD246 antigen; EC 2.7.10.1; Ki 1; Ki1; mutant anaplastic lymphoma kinase; NBLST 3; NBLST3; Tcrz; TFG/ALK; anti-ALK antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (91%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-ALK (Tyr1096) Antibody detects endogenous levels of ALK only when phosphorylated at Tyr1096. Tissue Specificity: Expressed in brain and CNS. Also expressed in the small intestine and testis, but not in normal lymphoid cells.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ALK antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ALK around the phosphorylation site of Tyr1096.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated at tyrosine residues by autocatalysis, which activates kinase activity. In cells not stimulated by a ligand, receptor protein tyrosine phosphatase beta and zeta complex (PTPRB/PTPRZ1) dephosphorylates ALK at the sites in ALK that are undergoing autophosphorylation through autoactivation. Phosphorylation at Tyr-1507 is critical for SHC1 association.N-glycosylated.
Subunit Structure	Homodimer. Homodimerizes when bound to ligand. Interacts with FRS2, IRS1, MDK, PTN and SHC1. Interacts with CBL, PIK3R1 and PLCG1 (By similarity).
Similarity	Belongs to the protein kinase superfamily. Tyr protein kinase family. Insulin receptor subfamily.
Subcellular Location	Cell membrane>Single-pass type I membrane protein. Note: Membrane attachment was crucial for promotion of neuron-like differentiation and cell proliferation arrest through specific activation of the MAP kinase pathway.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

IHC (Immunohistochemistry)
At 1/100 staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

IHC (Immunohistochemisry)
At 1/100 staining Rat brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

WB (Western Blot)
Western blot analysis of extracts from SUP-M2, using Phospho-ALK (Tyr1096) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.

WB (Western Blot)
Western blot analysis of extracts from Hela cells(H2O2 treatment), using Phospho-ALK (Tyr1096) Antibody. The lane on the left was treated with blocking peptide.Observed bands: 220kDa

ADDITIONAL INFORMATION

Related Product Information for anti-ALK antibody	Neuronal receptor tyrosine kinase that is essentially and transiently expressed in specific regions of the central and peripheral nervous systems and plays an important role in the genesis and differentiation of the nervous system. Transduces signals from ligands at the cell surface, through specific activation of the mitogen-activated protein kinase (MAPK) pathway. Phosphorylates almost exclusively at the first tyrosine of the Y-x-x-x-Y-Y motif. Following activation by ligand, ALK induces tyrosine phosphorylation of CBL, FRS2, IRS1 and SHC1, as well as of the MAP kinases MAPK1/ERK2 and MAPK3/ERK1. Acts as a receptor for ligands pleiotrophin (PTN), a secreted growth factor, and midkine (MDK), a PTN-related factor, thus participating in PTN and MDK signal transduction. PTN-binding induces MAPK pathway activation, which is important for the anti-apoptotic signaling of PTN and regulation of cell proliferation. MDK-binding induces phosphorylation of the ALK target insulin receptor substrate (IRS1), activates mitogen-activated protein kinases (MAPKs) and PI3-kinase, resulting also in cell proliferation induction. Drives NF-kappa-B activation, probably through IRS1 and the activation of the AKT serine/threonine kinase. Recruitment of IRS1 to activated ALK and the activation of NF-kappa-B are essential for the autocrine growth and survival signaling of MDK.

NCBI AND UNIPROT INFORMATION

NCBI GI #	29029632
NCBI GeneID	238
NCBI Accession #	NP_004295.2
NCBI GenBank Nucleotide #	NM_004304.4
UniProt Accession #	Q9UM73; Q4ZFX9; Q53QQ6; Q53RZ4; Q59FI3; Q9Y4K6
Molecular Weight	176,442 Da
NCBI Official Full Name	ALK tyrosine kinase receptor
NCBI Official Synonym Full Names	anaplastic lymphoma receptor tyrosine kinase
NCBI Official Symbol	ALK
NCBI Official Synonym Symbols	CD246; NBLST3
NCBI Protein Information	ALK tyrosine kinase receptor; CD246 antigen; mutant anaplastic lymphoma kinase
UniProt Protein Name	ALK tyrosine kinase receptor
UniProt Gene Name	**ALK**

UniProt Entry Name	ALK_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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