

## ALK Antibody

Catalog No: #33146

Package Size: #33146-1 50ul #33146-2 100ul

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

## Description

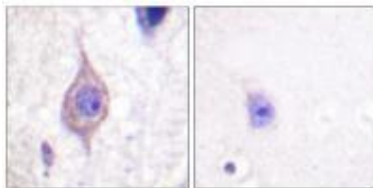
Product Name	ALK Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	IHC IF
Species Reactivity	Hu
Specificity	The antibody detects endogenous levels of total ALK protein.
Immunogen Type	Peptide
Immunogen Description	Synthesized peptide derived from Internal of human ALK.
Target Name	ALK
Other Names	ALK tyrosine kinase receptor precursor; Anaplastic lymphoma kinase; CD246; EC 2.7.10.1; kinase ALK
Accession No.	Swiss-Prot: Q9UM73NCBI Gene ID: 238
SDS-PAGE MW	170kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

## Application Details

Immunohistochemistry: 1:50~1:100

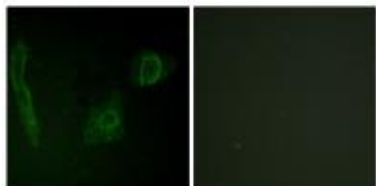
Immunofluorescence: 1:100~1:500

## Images



Immunohistochemistry analysis of paraffin-embedded human brain tissue using ALK antibody #33146.

Immunofluorescence analysis of HeLa cells, using ALK antibody #33146.



## Background

Neuronal orphan 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.

Brunangelo Falini, *Blood*, Nov 1999; 94: 3509 - 3515.

Philipp B Staber, *Blood*, Aug 2007; 10.1182/blood-2007-02-071258.

Monika Kasprzycka, *PNAS*, Jun 2006; 103: 9964 - 9969.

Ritsuro Suzuki, *Blood*, Nov 2000; 96: 2993 - 3000.

**Note:** This product is for in vitro research use only and is not intended for use in humans or animals.