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ALK Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7600C

Specification

ALK Antibody (Center) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	O9UM73
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit Ig**
Calculated MW	**176442**
Antigen Region	**636-666**

ALK Antibody (Center) - Additional Information

Gene ID 238

Other Names
ALK tyrosine kinase receptor, Anaplastic lymphoma kinase, CD246, ALK

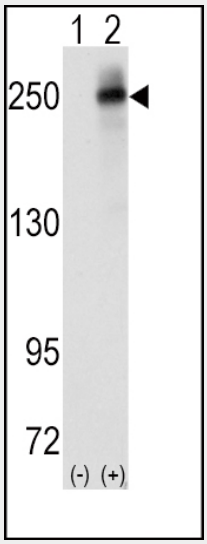
Target/Specificity
This ALK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 636-666 amino acids from the Central region of human ALK.

Dilution
WB~~1:1000
IHC-P~~1:10~50

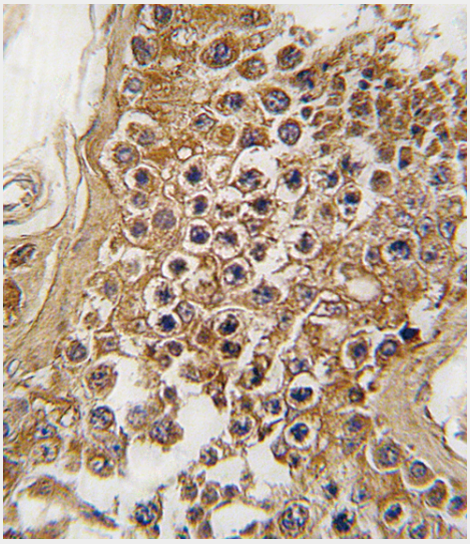
Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ALK Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.



Western blot analysis of ALK(Center)(arrow) using rabbit polyclonal ALK(Center) Antibody (Cat.#AP7600c).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ALK (Center) gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human testis tissue reacted with ALK antibody (Center) (Cat.#AP7600c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data

ALK Antibody (Center) - Protein Information

Name ALK (HGNC:427)

Function
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. Thinness gene involved in the resistance to weight gain: in hypothalamic neurons, controls energy expenditure acting as a negative regulator of white adipose tissue lipolysis and sympathetic tone to fine-tune energy homeostasis (By similarity).

Cellular 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

Tissue Location
Expressed in brain and CNS. Also expressed

demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

ALK Antibody (Center) - Background

ALK, a member of the insulin receptor subfamily of Tyr protein kinases, is an orphan receptor. It appears to play an important role in the normal development and function of the nervous system. This Type I membrane protein is expressed in brain and CNS and in the small intestine and testis, but not in normal lymphoid cells. A form of non-Hodgkin's lymphoma is characterized by a chromosomal translocation t(2;5)(p23;q35) that involves NPM1 and ALK. The protein contains 1 LDL-receptor class A domain and 2 putative MAM domains.

ALK Antibody (Center) - References

Morris, S.W., et al., Oncogene 14(18):2175-2188 (1997).
Iwahara, T., et al., Oncogene 14(4):439-449 (1997).
Morris, S.W., et al., Science 263(5151):1281-1284 (1994).
Morris, S.W., et al., Oncogene 15, 2883-2883 (1997).

in the small intestine and testis, but not in normal lymphoid cells

ALK Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture