

ALK Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AD80132

Product Information

Application	IHC
Primary Accession	Q9UM73
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Clone Names	137E9E8
Calculated MW	176442

Additional Information

Gene ID	238
Gene Name	ALK
Other Names	ALK tyrosine kinase receptor, 2.7.10.1, Anaplastic lymphoma kinase, CD246, ALK
Dilution	IHC~~Ready-to-use
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 is for research use only and not for use in diagnostic or therapeutic procedures.

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).

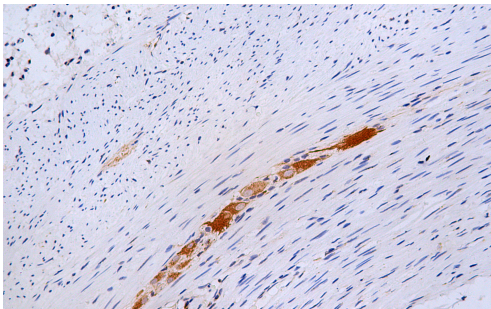
Cellular Location

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

Images



Immunohistochemical analysis of paraffin-embedded vermiform appendix tissue using AD80132 performed on the Abcarta® FAIP-30 Fully automated IHC platform. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a Citrate buffer (pH6. 0). Samples were incubated with primary antibody(Ready-to-use) for 15 min at room temperature. AmpSee™ Detection Systems(Abcepta:ADR005) was used as the secondary antibody.