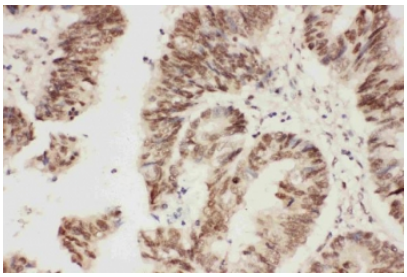
ALK Antibody / Anaplastic lymphoma kinase (R30831)

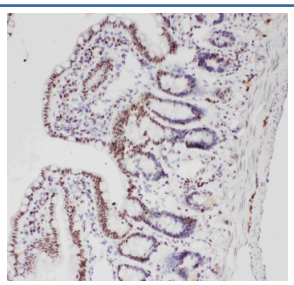
Catalog No.	Formulation	Size
R30831	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

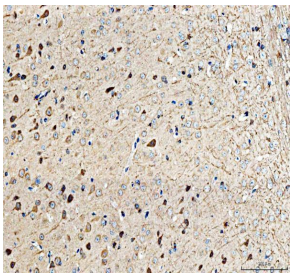
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9UM73
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This ALK antibody is available for research use only.



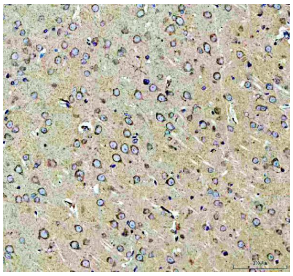
ALK Antibody Rectal Adenocarcinoma IHC. Immunohistochemistry staining of FFPE human rectal carcinoma tissue using ALK antibody demonstrates membranous and apical cytoplasmic HRP-DAB brown staining within malignant glandular epithelial cells. The staining pattern highlights polarized epithelial architecture and supports detection of ALK-associated signaling protein expression in colorectal adenocarcinoma-derived tumor tissue. HIER: boil tissue sections in pH6 citrate buffer for 20 min and allow to cool before testing.



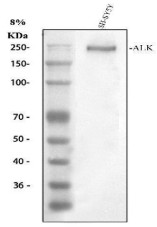
ALK Antibody Rat Intestinal Epithelium IHC. Immunohistochemistry staining of FFPE rat intestine using ALK antibody demonstrates predominantly nuclear and apical-associated HRP-DAB brown staining within intestinal epithelial cells lining mucosal glandular structures and villus-associated compartments. The observed staining pattern supports expression of ALK-associated signaling protein within gastrointestinal epithelial tissue. HIER: boil tissue sections in pH6 citrate buffer for 20 min and allow to cool before testing.



ALK Antibody Mouse Brain IHC. Immunohistochemical staining of FFPE mouse brain tissue with ALK antibody at 2 ug/ml. Heat-induced epitope retrieval (HIER) was performed in pH 8 EDTA buffer prior to staining. ALK immunoreactivity is observed predominantly in neuronal cell bodies and processes, consistent with the expected expression of Anaplastic Lymphoma Kinase (ALK), a receptor tyrosine kinase that regulates neuronal development, cell differentiation, and intracellular signaling pathways. Cell nuclei are counterstained with hematoxylin (blue).



ALK Antibody Rat Brain IHC. Immunohistochemical staining of FFPE rat brain tissue with ALK antibody at 2 ug/ml. Heat-induced epitope retrieval (HIER) was performed in pH 8 EDTA buffer prior to staining. ALK immunoreactivity is observed predominantly in neuronal cell bodies and processes, consistent with the expected expression of Anaplastic Lymphoma Kinase (ALK), a receptor tyrosine kinase that regulates neuronal development, neuronal differentiation, and intracellular signaling pathways. Cell nuclei are counterstained with hematoxylin (blue).



ALK Antibody SH-SY5Y Cell WB. Western blot testing of human SH-SY5Y cell lysate with ALK antibody at 0.5 ug/ml. A distinct immunoreactive band is detected at approximately 250 kDa, consistent with the mature glycosylated form of Anaplastic Lymphoma Kinase (ALK). Although the predicted core molecular weight is approximately 176 kDa, ALK commonly migrates at a higher apparent molecular weight due to extensive post-translational glycosylation. This receptor tyrosine kinase regulates neuronal development, cell differentiation, and intracellular signaling pathways.

Description

ALK Antibody specifically detects Anaplastic lymphoma kinase, also known as CD246 (cluster of differentiation 246), an enzyme that in humans is encoded by the ALK gene. Expressed in the small intestine, testis, and brain but not in normal lymphoid cells, ALK shows greatest sequence similarity to the insulin receptor subfamily of kinases. It plays an important role in the development of the brain and exerts its effects on specific neurons in the nervous system. The deduced amino acid sequences reveal that ALK is a novel receptor tyrosine kinase having a putative transmembrane domain and an extracellular domain. In Drosophila, localized Jeb activates Alk and the downstream Ras/mitogen-activated protein kinase cascade to specify a select group of visceral muscle precursors as muscle-patterning pioneers. Functional RNA interference screening on a set of these transcriptional targets revealed that CEBPB and BCL2A1 were absolutely necessary to induce cell transformation and/or to sustain growth and survival of ALK-positive ALCL cells. One particularly informative case presented a high-level gene amplification that was strictly limited to ALK, indicating that this gene may contribute on its own to neuroblastoma development. Mutated ALK proteins were overexpressed, hyperphosphorylated, and showed constitutive kinase activity. The knockdown of expression in ALK-mutated cells, but also in cell lines overexpressing the wildtype protein, led to a marked decrease of cell proliferation.

For additional ALK and oncogenic kinase research antibodies targeting fusion protein signaling, lung cancer biomarkers, and lymphoma-associated receptor tyrosine kinase pathways, explore the broader ALK Antibody page featuring recombinant rabbit monoclonal clone ALK1/6698R.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the ALK antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human ALK (LFRLRHFPCGNVNYGYQQQ) was used as the immunogen

for this ALK antibody (100% homologous in human, mouse and rat).

Storage

After reconstitution, the ALK antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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