PRODUCT INFORMATION

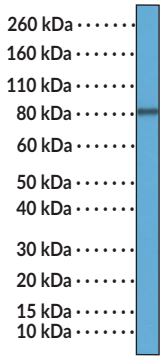
ALK/CD246 (C-Term) Rabbit Monoclonal Antibody (Clone RM361)

Item No. 32287

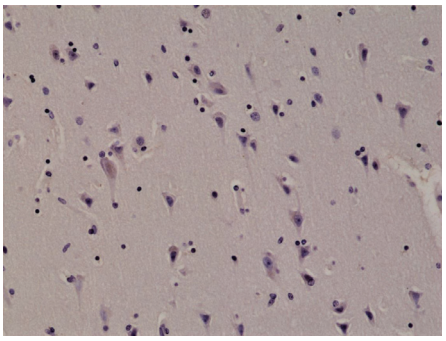
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	ALK Tyrosine Kinase Receptor, Anaplastic Lymphoma Kinase, CD246, Cluster of Differentiation 246
Immunogen:	Peptide from the C-terminal region of human ALK
Cross Reactivity:	(+) ALK, ALK fusion proteins
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM361
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

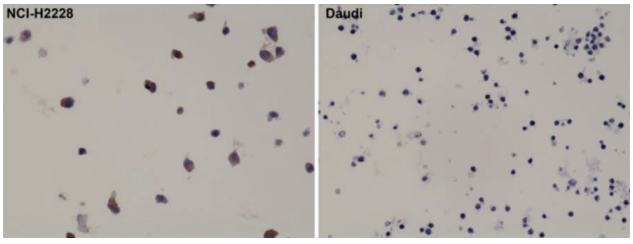
Images



WB of NSCLC cell line H2228 (cell lysate) expressing EML4-ALK variant 3 using ALK/CD246 (C-Term) Rabbit Monoclonal Antibody (Clone RM361) at a dilution of 1:2,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human brain tissue using ALK/CD246 (C-Term) Rabbit Monoclonal Antibody (Clone RM361) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded NCI-H2228 cells (expressing EML4-ALK variant 3) and Daudi cells (ALK negative) using ALK/CD246 (C-Term) Rabbit Monoclonal Antibody (Clone RM361).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

Anaplastic lymphoma kinase (ALK), also known as CD246, is a receptor tyrosine kinase and member of the insulin receptor superfamily.[1] It is composed of an N-terminal extracellular domain that participates in cell-cell interactions, as well as transmembrane and juxtamembrane domains, and a C-terminal intracellular region that contains the protein kinase domain. Full-length ALK is expressed primarily in the embryonic nervous system, but the ALK kinase domain is expressed in a variety of cell types in the adult as a fusion protein.[1,2] ALK is involved in cell proliferation and survival through downstream activation of the ERK1/2 and JAK/STAT signaling pathways, respectively.[1] The fusion protein nucleophosmin-ALK (NPM-ALK) has a constitutively active ALK kinase domain and is ectopically expressed in anaplastic large-cell lymphoma (ALCL), a type of non-Hodgkin lymphoma.[3] A variety of ALK-based fusion proteins are associated with ALCL, non-small cell lung cancer (NSCLC), inflammatory myofibroblastic tumor (IMT), diffuse large B cell lymphoma (DLBCL), and other cancers.[1] Activating mutations in, and overexpression of, *ALK* have been associated with childhood neuroblastomas. Cayman's ALK/CD246 (C-Term) Rabbit Monoclonal Antibody (Clone RM361) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Roskoski, R., Jr. Anaplastic lymphoma kinase (ALK): Structure, oncogenic activation, and pharmacological inhibition. *Pharmacol. Res.* **68(1)**, 68-94 (2013).
2. Vernersson, E., Khoo, N.K.S., Henriksson, M.L., *et al.* Characterization of the expression of the ALK receptor tyrosine kinase in mice. *Gene Expr. Patterns* **6(5)**, 448-461 (2006).
3. Morris, S.W., Kirstein, M.N., Valentine, M.B., *et al.* Fusion of a kinase gene, ALK, to a nucleolar protein gene, NPM, in non-Hodgkin's lymphoma. *Science* **263(5151)**, 1281-1284 (1994).

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