

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ALK/CD246 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human ALK/CD246 Val19-Ser1038 Accession # Q9UM73
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

ALK (Anaplastic Lymphoma Kinase; also CD246) is a 200-220 kDa member of the Insulin receptor subfamily, tyrosine kinase family, protein kinase superfamily of proteins. It shows restricted expression, being limited to select sympathetic and sensory neurons, endothelial cells and tumor cells. Although activation of ALK appears to induce cell proliferation, the exact ligand(s) for ALK is unknown. In a temporally-regulated context, midkine has been suggested to bind to ALK, and ionic Zn has been reported to activate ALK cytoplasmically. Mature human ALK is a 1602 amino acid (aa) type I transmembrane glycoprotein (SwissProt #:Q9UM73). It contains a 1020 aa extracellular region (aa 19-1038) that contains one protein-protein MAM domain (aa 264-427), an LDL receptor class A region (aa 437-473), a second MAM domain (aa 480-631) and one utilized phosphorylation site at Ser211. This is accompanied by a long 561 aa cytoplasmic domain that possesses a protein kinase domain (aa 1116-1392) plus eleven utilized Tyr phosphorylation sites. There is one potential splice variant that contains a four aa insert after Glu549. There is also an 80 kDa soluble product that arises from cleavage of the extracellular domain. Although a third 140 kDa product is frequently seen in SDS-Page, its structural basis is unclear. Almost 20 distinct ALK fusion products arise from gene translocations involving multiple intracellular molecules. These seem to involve blocks of aa starting between aa 1050-1060 and continuing to aa 1620. Over aa 19-1038, human ALK shares 88% aa sequence identity with mouse ALK.

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