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Product datasheet for UM800118CF

ALK Mouse Monoclonal Antibody [Clone ID: OTI1A4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI1A4
Applications:	IHC, LMNX, WB
Recommended Dilution:	WB 1:2000, IHC: 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Human recombinant protein fragment corresponding to amino acids 1300-1620 of human ALK (NP_004295) produced in E.coli.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	176.3 kDa
Gene Name:	ALK receptor tyrosine kinase
Database Link:	NP_004295 Entrez Gene 11682 MouseEntrez Gene 266802 RatEntrez Gene 238 Human Q9UM73

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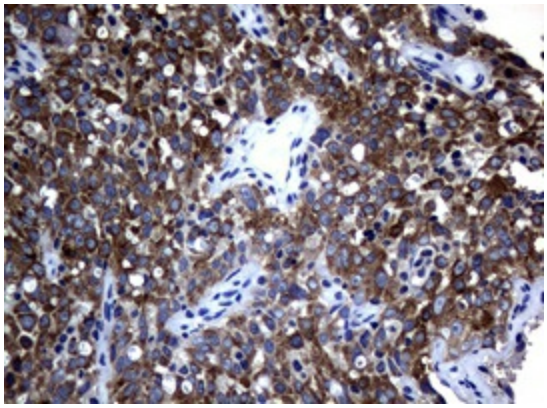
Background: This gene encodes a receptor tyrosine kinase, which belongs to the insulin receptor superfamily. This protein comprises an extracellular domain, an hydrophobic stretch corresponding to a single pass transmembrane region, and an intracellular kinase domain. It plays an important role in the development of the brain and exerts its effects on specific neurons in the nervous system. This gene has been found to be rearranged, mutated, or amplified in a series of tumours including anaplastic large cell lymphomas, neuroblastoma, and non-small cell lung cancer. The chromosomal rearrangements are the most common genetic alterations in this gene, which result in creation of multiple fusion genes in tumourigenesis, including ALK (chromosome 2)/EML4 (chromosome 2), ALK/RANBP2 (chromosome 2), ALK/ATIC (chromosome 2), ALK/TFG (chromosome 3), ALK/NPM1 (chromosome 5), ALK/SQSTM1 (chromosome 5), ALK/KIF5B (chromosome 10), ALK/CLTC (chromosome 17), ALK/TPM4 (chromosome 19), and ALK/MSN (chromosome X). [provided by RefSeq, Jan 2011]

Synonyms: CD246; NBLST3

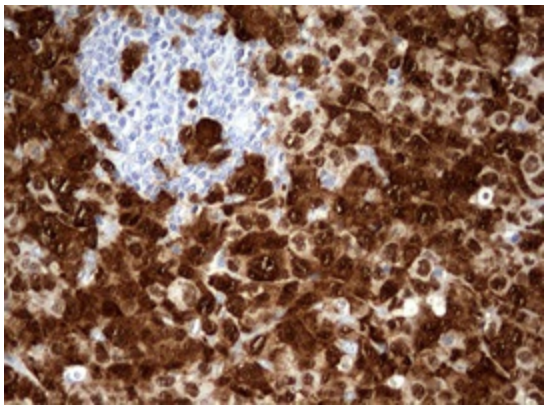
Note: The clone was previously sold as TA801287 before being upgraded to UltraMAB.

Protein Families: Druggable Genome, Protein Kinase

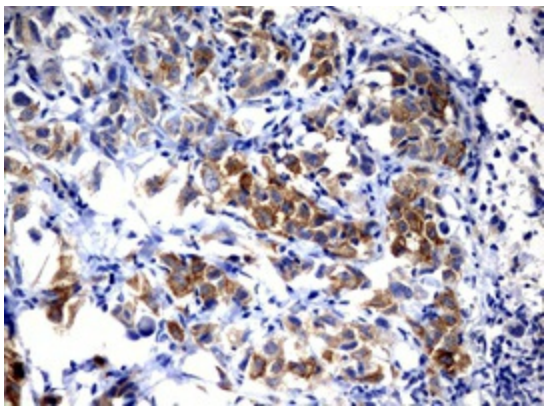
Product images:



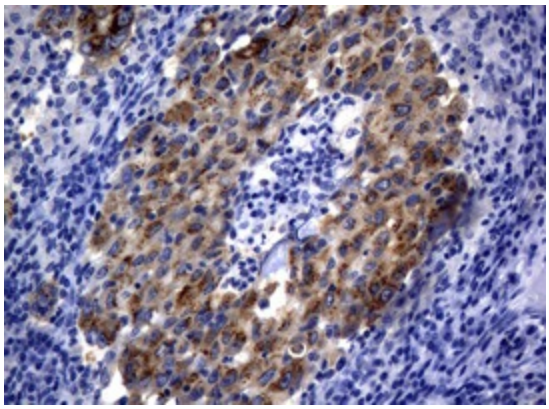
Immunohistochemical staining of paraffin-embedded Human non-small cell lung cancer sample with ALK translocation detected by FISH using anti-ALK mouse monoclonal antibody. ([UM800118], 1:50; heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.0, 120°C for 3min)



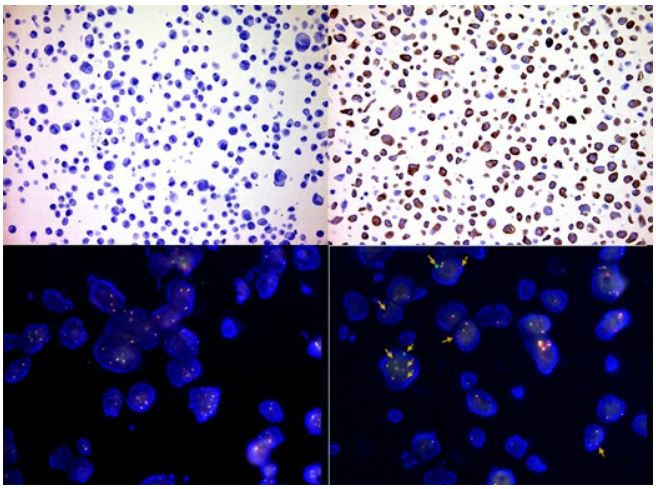
Immunohistochemical staining of paraffin-embedded Human large B cell lymphoma with ALK translocation using anti-ALK mouse monoclonal antibody. ([UM800118], 1:50; heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.0, 120°C for 3min)



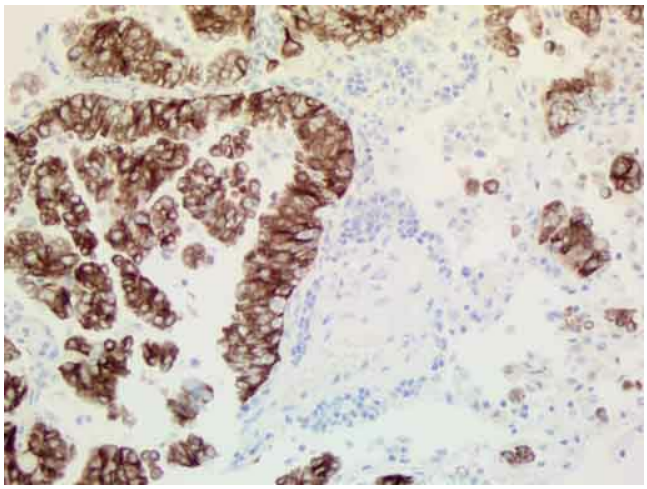
Immunohistochemical staining of paraffin-embedded ALK-positive lung tumor xenograft using anti-ALK mouse monoclonal antibody. ([UM800118], 1:50; heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.0, 120°C for 3min)



Immunohistochemical staining of paraffin-embedded Human non-small cell lung cancer sample with EML4-ALK translocation detected by PCR using anti-ALK mouse monoclonal antibody. ([UM800118], 1:50; heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.0, 120°C for 3min)



Immunohistochemistry staining of paraffin-embedded human cell line H1975 (upper left) and H2228 (upper right) on IHC antibody quality control slide using anti-ALK mouse monoclonal antibody [UM800118] (1:400). The ALK rearrangement in H2228 cells is labeled with ALK Breakapart probe in FISH test (lower right, 60X) and the control of H1975 cell at the same FISH probe test (lower left, 60X).



Immunohistochemical staining of paraffin-embedded human ALK-positive lung cancer tissue using anti-ALK mouse monoclonal antibody. ([UM800118], 1:100 for 30 min at RT; heat-induced epitope retrieval by TEE, pH9.0)

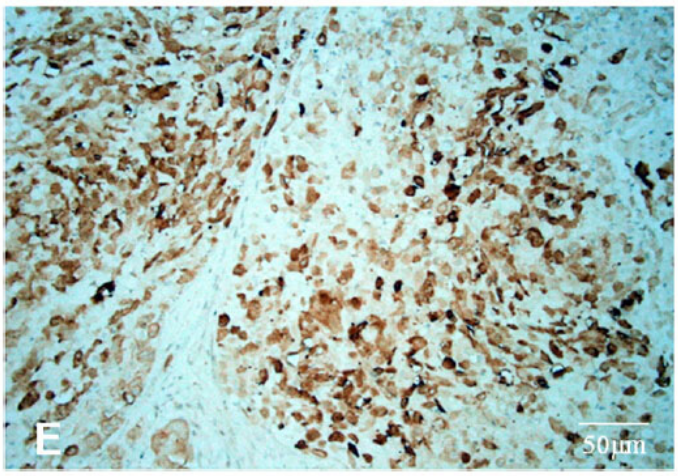


Figure from citation: Immunohistochemistry of ALK protein level by using anti-ALK antibody in human right cervical lymph node. Dilution: 1:200
View Citation

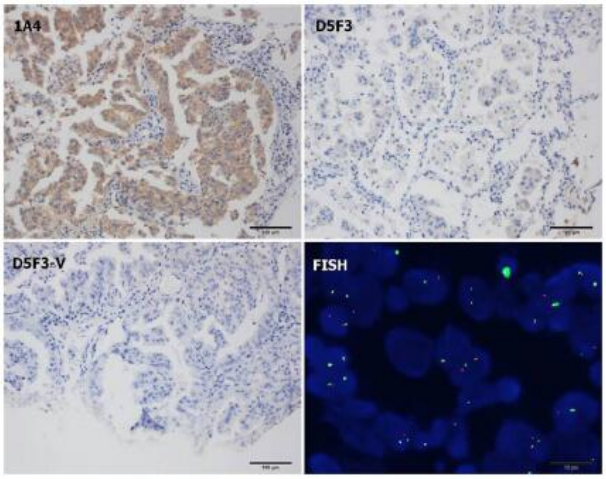


Figure from citation: ALK rearrangements detected by 1A4 with routine IHC, D5F3 with routine IHC, and D5F3 with Ventana system and FISH assay in tissues of consecutive patients with lung adenocarcinoma. 1A4 (+), D5F3 (-), D5F3 Ventana (-), and FISH (+). View Citation

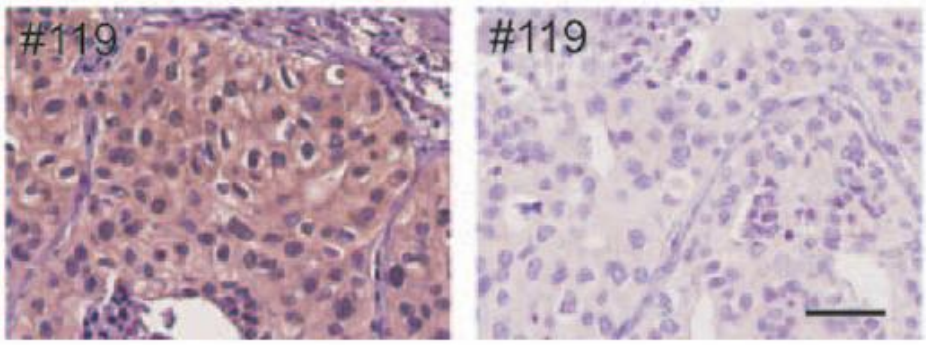


Figure from citation: ALK staining in human adenocarcinoma specimens using antibodies 1A4 and D5F3. Case #119 (ALK-negative according to qRT-PCR) is clearly negative with D5F3 (right) but weakly positive with 1A4 (1+) (left). View Citation

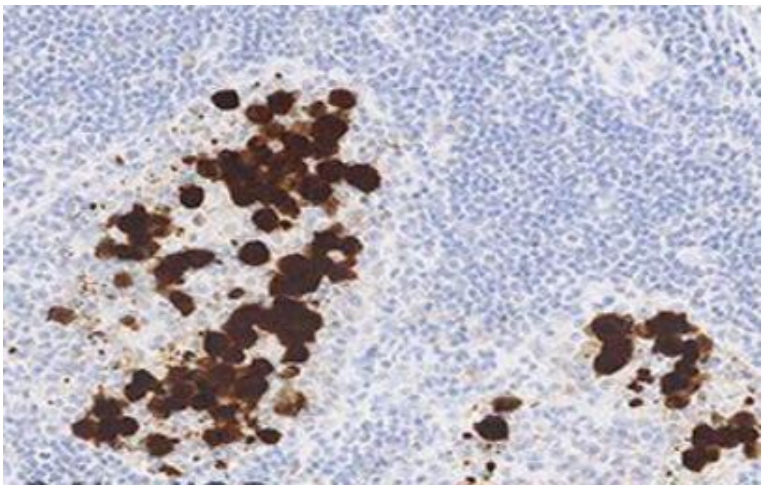


Figure from citation: Optimal ALK staining of the ALCL with ALK rearrangement using the mAb clone OTI1A4 optimally calibrated, HIER in TRS High pH 9 (Dako), a 3-step polymer based detection system and performed on Omnis, Dako. View Citation

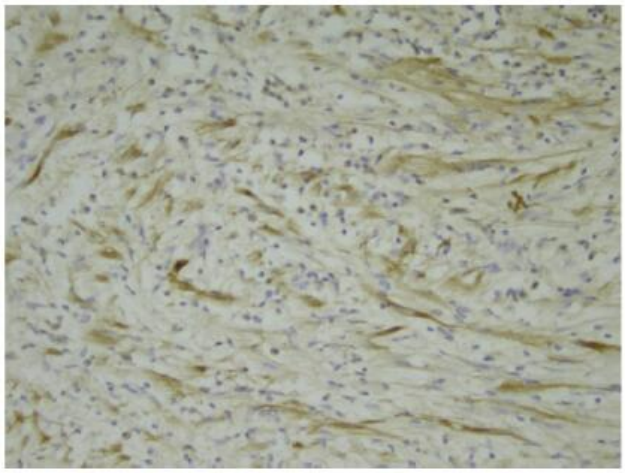
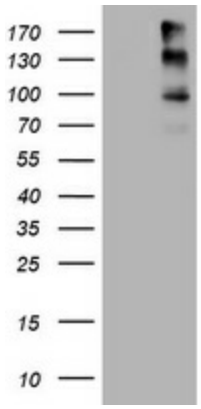
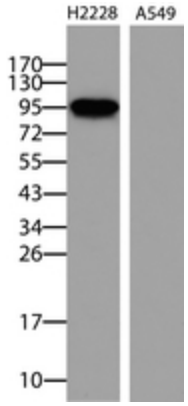


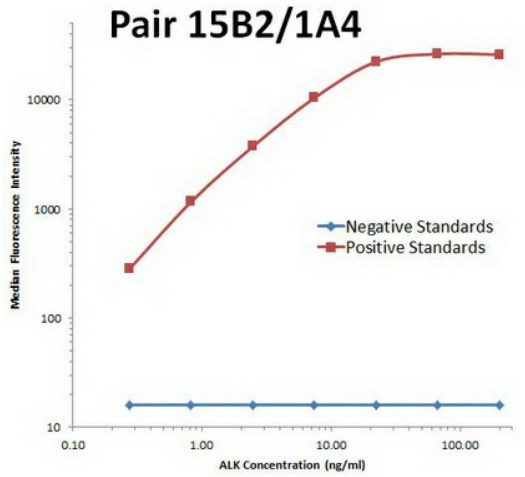
Figure from citation: Immunohistochemistry showing brown Anaplastic lymphoma kinase (ALK-1) staining of spindle cells in an inflammatory myofibroblastic tumour of the bladder specimen. View Citation



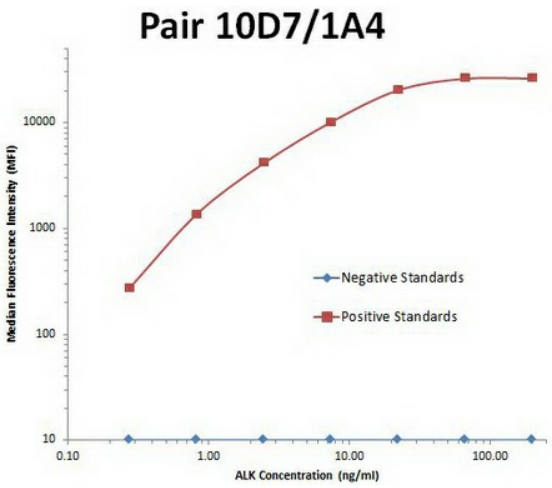
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ALK (Cat# [RC222485], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ALK antibody(Cat# [UM800118]).



Western blot analysis of extracts (35ug) from H2228 and A549 cell lines by using anti-ALK monoclonal antibody. ([UM800118], 1:10,000)



ALK Luminex with 15B2 Capture ([TA801288]) and 1A4 Detection ([UM800118]) Antibodies. Substrate used: full length HEK293 cells expressed recombinant ALK protein ([TP322485]).



ALK Luminex with 10D7 Capture ([TA801306]) and 1A4 Detection ([UM800118]) Antibodies. Substrate used: full length HEK293 cells expressed recombinant ALK protein ([TP322485]).