

# ALK (C26G7) Rabbit mAb (Sepharose® Bead Conjugate)



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**Entrez-Gene ID** #238  
**UniProt ID** #Q9UM73

Applications	Species Cross-Reactivity	Molecular Wt.	Isotype
IP Endogenous	H	80 kDa (NPM-ALK), 220 kDa (ALK)	Rabbit IgG

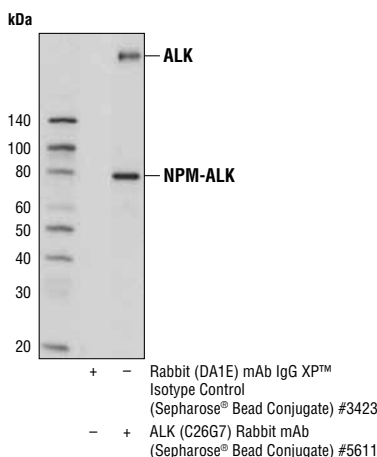
**Description:** This Cell Signaling Technology antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated Sepharose® beads. ALK (C26G7) Rabbit mAb (Sepharose® Bead Conjugate) is useful for immunoprecipitation assays. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated ALK (C26G7) Rabbit mAb #3333.

**Background:** Anaplastic lymphoma kinase (ALK) is a tyrosine kinase receptor for pleiotrophin (PTN), a growth factor involved in embryonic brain development (1-3). In ALK-expressing cells, PTN induces phosphorylation of both ALK and the downstream effectors IRS-1, Shc, PLCγ, and PI3 kinase (1). ALK was originally discovered as a nucleophosmin (NPM)-ALK fusion protein produced by a translocation (4). Investigators have found that the NPM-ALK fusion protein is a constitutively active, oncogenic tyrosine kinase associated with anaplastic lymphoma (4). Research literature suggests that activation of PLCγ by NPM-ALK may be a crucial step for its mitogenic activity and involved in the pathogenesis of anaplastic lymphomas (5).

A distinct ALK oncogenic fusion protein involving ALK and echinoderm microtubule-associated protein like 4 (EML4) has been described in the research literature from a non-small cell lung cancer (NSCLC) cell line, with corresponding fusion transcripts present in some cases of lung adenocarcinoma. The short, amino-terminal region of the microtubule-associated protein EML4 is fused to the kinase domain of ALK (6-8).

**Specificity/Sensitivity:** ALK (C26G7) Rabbit mAb (Sepharose® Bead Conjugate) detects endogenous levels of total ALK protein. This antibody does not cross-react with other family members.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a recombinant fusion protein surrounding amino acid 1475 of human ALK.



*Immunoprecipitation of Karpas-299 cell lysates using Rabbit (DA1E) mAb IgG XP™ Isotype Control (Sepharose® Bead Conjugate) #3423 and ALK (C26G7) Rabbit mAb (Sepharose® Bead Conjugate). The western blot was probed using ALK (31F12) Mouse mAb #3791. Cell Line Source: Dr Abraham Karpas at the University of Cambridge.*

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol. Store at -20°C. *Do not aliquot the antibodies.*

**Directions for Use:** Add 10 µl of well-vortexed beads to 200 µl of cell lysate at 1 mg/ml in 1X Cell Lysis Buffer (10X) #9803. See protocol for more details.

**For product specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

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**Background References:**

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- (2) Iwahara, T. et al. (1997) *Oncogene* 14, 439-49.
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- (4) Morris, S.W. et al. (1994) *Science* 263, 1281-4.
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- (6) Rikova, K. et al. (2007) *Cell* 131, 1190-203.
- (7) Takeuchi, K. et al. (2008) *Clin Cancer Res* 14, 6618-24.
- (8) Soda, M. et al. (2007) *Nature* 448, 561-6.

U.S. Patent No. 5,675,063  
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