Revision 1

Store at -20C

#12645

ALK Antibody Sampler Kit

Cell Signaling TECHNOLOGY®

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Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-ALK (Tyr1078) (D28B4) Rabbit mAb	12127	40 µl	220 (ALK), 80 (NPM-ALK) kDa	Rabbit IgG
Phospho-ALK (Tyr1096) (D96H9) Rabbit mAb	6962	40 µl	80 (NPM-ALK) 220 (ALK) kDa	Rabbit IgG
Phospho-ALK (Tyr1278) (D59G10) Rabbit mAb	6941	40 µl	80 (NPM-ALK); 220 (ALK) kDa	Rabbit IgG
Phospho-ALK (Tyr1278/1282/1283) Antibody	3983	40 µl	80 (NPM-ALK), 220 (ALK) kDa	Rabbit
Phospho-ALK (Tyr1282/1283) (D39B2) Rabbit mAb	9687	40 µl	80 (NPM-ALK), 220 (ALK) kDa	Rabbit IgG
Phospho-ALK (Tyr1586) (3B4) Rabbit mAb	3348	40 µl	80 (NPM-ALK) 220 (ALK) kDa	Rabbit IgG
Phospho-ALK (Tyr1604) Antibody	3341	40 µl	80 (NPM-ALK) 220 (ALK) kDa	Rabbit
ALK (C26G7) Rabbit mAb	3333	40 µl	80 (NPM-ALK), 220 (ALK) kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The ALK Antibody Sampler Kit provides an economical means of detecting total ALK as well as ALK phosphorylated at various residues. The kit includes enough antibody to perform four western blot experiments with each primary antibody.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

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).

Background References

1. Stoica, G.E. et al. (2001) *J Biol Chem* 276, 16772-9.
2. Iwahara, T. et al. (1997) *Oncogene* 14, 439-49.
3. Morris, S.W. et al. (1997) *Oncogene* 14, 2175-88.
4. Morris, S.W. et al. (1994) *Science* 263, 1281-4.
5. Bai, R.Y. et al. (1998) *Mol Cell Biol* 18, 6951-61.
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.

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Limited Uses

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