

# Active Recombinant Human ALK, GST-tagged

**Cat. No.** ALK-08H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| <b>Product Overview</b> | Recombinant Human ALK, fused with GST-tag, was expressed in Baculovirus infected Sf21 cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | Sf21 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>ProteinLength</b>    | 1-1059aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | <p>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).</p> |
| <b>Form</b>             | Liquid.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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| <b>Bio-activity</b>     | The activity was measured by off-chip mobility shift assay. The enzyme was incubated with fluorescence-labeled substrate and Mg (or Mn)/ATP. The phosphorylated and unphosphorylated substrates were separated and detected by LabChip™3000. Substrate : Src tide. ATP: 100 $\mu$ M. |
| <b>Molecular Mass</b>   | 145 kDa                                                                                                                                                                                                                                                                              |
| <b>Purity</b>           | 64 % by SDS-PAGE/CBB staining.                                                                                                                                                                                                                                                       |
| <b>Applications</b>     | Functional Study; SDS-PAGE                                                                                                                                                                                                                                                           |
| <b>Storage</b>          | Store at -80°C. Aliquot to avoid repeated freezing and thawing.                                                                                                                                                                                                                      |
| <b>Storage Buffer</b>   | In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.05% Brij35, 1 mM DTT, 10% glycerol)                                                                                                                                                                                                        |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                      |
| <b>Gene Name</b>        | ALK anaplastic lymphoma receptor tyrosine kinase [ Homo sapiens (human) ]                                                                                                                                                                                                            |
| <b>Official Symbol</b>  | ALK                                                                                                                                                                                                                                                                                  |
| <b>Synonyms</b>         | ALK; CD246; NBLST3; anaplastic lymphoma receptor tyrosine kinase; ALK tyrosine kinase receptor; CD246 antigen; mutant anaplastic lymphoma kinase; NP_004295.2; EC 2.7.10.1                                                                                                           |
| <b>Gene ID</b>          | 238                                                                                                                                                                                                                                                                                  |
| <b>mRNA Refseq</b>      | NM_004304                                                                                                                                                                                                                                                                            |
| <b>Protein Refseq</b>   | NP_004295                                                                                                                                                                                                                                                                            |

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|----------------------------|------------------------------------------------------------------|
| <b>MIM</b>                 | 105590                                                           |
| <b>UniProt ID</b>          | Q9UM73                                                           |
| <b>Chromosome Location</b> | 2p23                                                             |
| <b>Pathway</b>             | Non-small cell lung cancer                                       |
| <b>Function</b>            | ATP binding; NF-kappaB-inducing kinase activity; protein binding |

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