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Recombinant Human
Anaplastic Lymphoma Kinase (ALK)

Catalog No.	Size	Species	Protein Accession No.
230-00014	10, 50 µg	Human	NP_004295

Synonyms

ALK, anaplastic lymphoma receptor tyrosine kinase, anaplastic lymphoma kinase, CD246, ALK tyrosine kinase receptor.

Description

Anaplastic lymphoma kinase (ALK) is a novel receptor protein-tyrosine kinase having a putative transmembrane domain and an extracellular domain. ALK plays an important role in the normal development and function of the nervous system. The ALK gene can be oncogenic by forming a fusion gene with other genes (for example, the nucleophosmin (NPM) gene) and DNA mutations for the gene itself. Recent study shows that mutation of ALK is linked to 10-15% of neuroblastoma (a deadly childhood form of cancer).

Preparation

The human *ALK* gene encoding a truncated ALK polypeptide of Phe_{419}-Val_{526}, Pro_{650}-Thr_{680} and Glu_{1605}-Pro_{1620} was cloned and expressed in *Escherichia coli*. The recombinant protein has an *N*-terminal 6×histidine tag and was purified by immobilized metal ion affinity chromatography (IMAC).

Source

Recombinant histidine-tagged protein, purified from *E. coli*.

Predicted Molecular Mass

~20 kDa with the 6×histidine tag.

Formulation

Recombinant ALK is lyophilized from a 0.2 µm filtered PBS solution with the protein concentration of 0.5 mg/mL.

Stability & Storage

- Lyophilized product is stable at room temperature for 3 weeks, it is recommended to be stored desiccated below -20°C in a manual defrost freezer.
- **Reconstitution**: briefly spin the vial prior to opening to bring the contents to the bottom. It is recommended to reconstitute the lyophilized product with sterile deionized water or PBS.
- Upon reconstituted, the protein should be stored at 4°C for one week. For long term storage, it is recommended to add a carrier protein (0.1% HSA or BSA) and store at -20 or -80°C. **Please avoid repeated freeze-thaw cycles.**

Purity

>95%, determined by SDS-PAGE and stained with Commassie blue.

References

1. Morris SW, et al. 1994. Fusion of a kinase gene, ALK, to a nucleolar protein gene, NPM, in non-Hodgkin's lymphoma. *Science* **263** (5151): 1281–4.
2. Benharroch D, *et al.* (1998). ALK-positive lymphoma: a single disease with a broad spectrum of morphology. *Blood* **91** (6): 2076–84.
3. Pulford K, *et al.* (2005). The emerging normal and disease-related roles of anaplastic lymphoma kinase. *Cell. Mol. Life Sci.* **61** (23): 2939–53.
4. Iwahara T, *et al.* (1997). Molecular characterization of ALK, a receptor tyrosine kinase expressed specifically in the nervous system. *Oncogene* **14** (4): 439–49.