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Certificate of Analysis
Alk, 10 µg

Recombinant Human Anaplastic Lymphoma Kinase, Histidine-tagged
Cat Number: BIOTK-Alk
Lot Number: 3-08

Description:
Recombinant Human protein, Catalytic Domain (amino acids 1092-1406), Histidine-tagged, expressed in insect cells. No special measures were taken to activate this kinase.

Specific Activity:
15.2 nmole of phosphate transferred to Poly E_4Y peptide substrate (Sigma, P0275) per minute per mg of total protein at 30°C. Activity determined at a final protein concentration of 4.5 µg/mL.

Protein Concentration:
0.22 mg/mL total protein as measured using the Bradford protein assay with BSA as a standard.

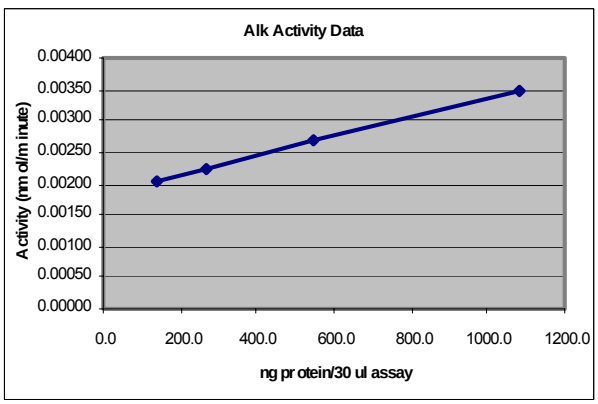
Storage and Handling:
Store at -80°C for long time. At first use, aliquot and to avoid multiple freeze-thaw cycles. If properly stored at -80°C, this product is guaranteed for 12 months from date of purchase. **Protein stable for 6 months at -20°C, for 3-5 h at 4°C and not stable at room temperature.**

Storage Buffer:
50 mM Tris (pH 7.5), 150 mM NaCl, 0.02% Triton® X-100, 2 mM DTT, 50% Glycerol

Enzyme Dilution Buffer:
50 mM Tris (pH 7.5), 10% Glycerol, 0.02% Triton® X-100, 0.1 mg/mL BSA, 0.5 mM Na_3VO_4, 2 mM DTT

Quality Assurance

Activity Graph:

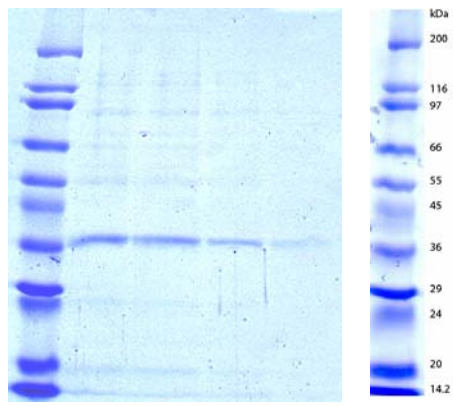


Assay Conditions:
The enzyme was pre-diluted in enzyme dilution buffer and assayed in 50 mM Tris (pH 7.5), 0.01% Tween-20, 5 mM $MgCl_2$, 5 mM $MnCl_2$, 0.5 mM Na_3VO_4, 2 mM DTT, 10 µM ATP, 50 µg Poly E_4Y peptide substrate per reaction and trace [^{32}P]-γ-ATP for 10 minutes at 30°C.

Purity:
≥75% as determined by a Coomassie blue-stained SDS-PAGE gel.

Molecular Weight:
39 kDa calculated from the sequence below.

PAGE Description:



The SDS-PAGE was run on a 10 well 4-20% Tris-Glycine Novex gel (Catalog #: EC6025BOX).

Lane 1: SigmaMarker, Wide Range, Molecular Weight (Catalog#: S8445, Sigma)
Lane 2: 3.2 µg Alk
Lane 3: 1.6 µg Alk
Lane 4: 0.8 µg Alk
Lane 5: 0.4 µg Alk

Protein Sequence:

MSYYHHHHHH DYDIPTTENL YFQGAMDP**YN PNYCFAGKTS SISDLKEVPR KNITLIRGLG HGAFGEVYEG QVSGMPNDPS PLQVAVKTLP EVCSEQDELD** 100
FLMEALIISK FNHQNIVRCI GVSLQSLPRF ILLELMAGGD LKSFLRETRP RPSQPSSLAM LDLLHVARDI ACGCQYLEEN HFIHRDIAAR NCLLTCPGPG 200
RVAKIGDFGM ARDIYRASYY RKGGCAMLPV KWMPPEAFME GIFTSKTDTW SFGVLLWEIF SLGYMPYPSK SNQEVLEFVT SGGRMDPPKN CPGPVYRIMT 300
QCWQHQPEDR PNFAIILERI EYCTQDPDVI NTALPIEYGP LVE. 343

1092-1406 amino acids from Alk (GenBank Accession Number NP_004295) in bold.