Data Sheet (Cat.No.TMPY-04377)

TargetMol

Brk Protein, Human, Recombinant (GST)

General Information

Synonyms: BRK;protein tyrosine kinase 6

Protein Construction: A DNA sequence encoding the full length of human PTK6 (NP_005966.1) (Met 1-Thr 451) was fused with the GST tag at the N-terminus. Predicted N terminal: Met

Species: Human

Expression Host: Baculovirus Insect Cells

Accession: Q13882-1

Molecular Weight: 78 kDa (predicted); 70 kDa (reducing conditions)

QC Testing

Biological Activity: Kinase activity untested

Purity: > 89 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Supplied as sterile 50 mM Tris, 100 mM NaCl, pH 8.0, 10% glycerol.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

Tyrosine kinase (PTKs) is a protein that carries out tyrosine phosphorylation, which play a fundamental role in cell proliferation, survival, adhesion, and motility and have also been demonstrated to mediate malignant cell transformation. Overexpression of this protein in mammary epithelial cells leads to sensitization of the cells to epidermal growth factor and results in a partially transformed phenotype. Two classes of PTKs are present in cells: the transmembrane receptor PTKs and the non-receptor PTKs. Tyrosine kinase(PTKs)-6/ BRK is a cytoplasmic non-receptor protein kinase that may function as an intracellular signal transducer in epithelial tissues. Tyrosine kinase (PTKs)-6/ BRK has been shown to undergo autophosphorylation. It has been found that the constitutive expression of the tyrosine kinase(PTKs)-6/ BRK is in a large proportion of cutaneous T-cell lymphomas and other transformed T- and B-cell populations. State BRK expression was also induced in normal T-cells. In clinical, the cytoplasmic

tyrosine kinase PTK6 (BRK) shows elevated expression in approximately two-thirds of primary breast tumours, and is implicated in EGF receptor-dependent signalling and epithelial tumorigenesis.

Reference

Aubele M, et al. (2008) Prognostic value of protein tyrosine kinase 6 (PTK6) for long-term survival of breast cancer patients.British Journal of Cancer. 99: 1089-95.

Kasprzycka M, et al. (2006) Expression and oncogenic role of Brk (PTK6/sik) protein tyrosine kinase in lymphocytes. American Journal of Pathology. 168: 1631-41.

Hubbard SR, et al. (2000) Protein tyrosine kinase structure and function. Annual review of biochemistry. 69: 373-98.