

# Human PTK6 / Brk Protein (GST Tag)

Catalog Number: 10682-H09B



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

BRK

### 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.

Source: Human

Expression Host: Baculovirus-Insect Cells

## QC Testing

Purity: > 89 % as determined by SDS-PAGE

### Bio Activity:

Kinase activity untested

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

### Molecular Mass:

The recombinant human GST/PTK6 chimera consists of 676 amino acids and predicts a molecular mass of 78 kDa. It migrates as an approximately 70 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

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

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

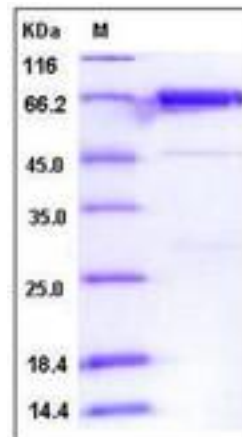
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Tyrosine kinase (PTKs) is a protein that carry 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 which 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.

## References

1. 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.
2. 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.
3. Hubbard SR, *et al.* (2000) Protein tyrosine kinase structure and function. *Annual review of biochemistry*. 69: 373-98.

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