

Product Specification

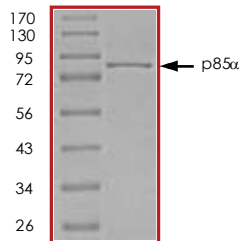
PI3K (p85 α) Protein

(Full-length recombinant protein expressed in Sf 9 cells with N-terminal His-tag)

Catalog #:	7766-5
Amount:	5 μ g
Lot #:	_____
Concentration:	0.2 mg/ml

Purity Assessment

> 95 % by densitometry from SDS-PAGE and Coomassie blue staining; the band was at ~86 kDa.



Product Description

Recombinant full length human PI3K (p85 α) containing N-terminal His- tag was expressed by baculovirus in Sf 9 insect cells. The gene accession number is NM_181523. This material is sold for research purposes only.

Formulation

Recombinant protein in storage buffer (50 mM sodium phosphate, pH 7.0, 300 mM NaCl, 2 mM DTT, 150 mM imidazole, 0.1 mM PMSF, 25 % glycerol.).

Storage and Stability

Store product frozen at or below -70°C; aliquot to avoid repeated thawing and freezing.

Scientific Background

The PI3K comprises of a 110 kDa catalytic subunit and a 85 kDa regulatory subunit. A number of isoforms of the 110 kDa catalytic subunit and the 85 kDa regulatory subunit exist in cells. p85 α modulates the interaction between PI3K and platelet-derived growth factor receptor (1). Furthermore, estrogen receptor isoform ER-alpha binds in a ligand-dependent manner to the p85-alpha regulatory subunit of PI3K. Stimulation with estrogen increases ER-alpha-associated PI3K activity, leading to the activation of protein kinase B/AKT and endothelial nitric oxide synthase (eNOS) (2).

References

1. Skolnik, E. Y. Et al: Cloning of PI3-kinase associated p85 utilizing a novel method for expression/cloning of target proteins for receptor tyrosine kinases. *Cell* 65: 83-90, 1991.
2. Simoncini, T. et al: Interaction of oestrogen receptor with the regulatory subunit of phosphatidylinositol-3-OH kinase. *Nature* 407: 538-541, 2000.