SignalChem
Specialists in Signaling Proteins
1-866-9 KINASE (54-6273)

Catalogue #	Aliquot Size
Y86-30G-50	50 µg
Y86-30G-200	200 µg

14-3-3σ Protein

Full-length recombinant protein expressed in E. coli cells

Catalog # Y86-30G
Lot # U255-1

Product Description

Recombinant full-length human 14-3-3σ was expressed in E. coli cells using an N-terminal GST tag. The gene accession number is NM_006142.

Gene Aliases

SFN, stratifin, YWHAS

Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

Storage and Stability

Store product at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

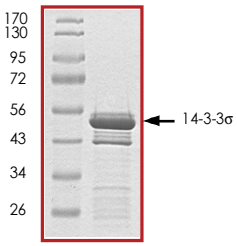
Scientific Background

14-3-3σ or stratifin is a protein that is strongly induced by gamma irradiation and other DNA-damaging agents (1). The induction of 14-3-3σ is mediated by a p53 responsive element. Exogenous introduction of 14-3-3σ into cycling cells results in a G2 cell cycle arrest (2). Knockout of 14-3-3σ in cells showed that the cells are unable to maintain cell cycle arrest after DNA damage. The 14-3-3sigma -/- cells die as they enter mitosis. This process is associated with a failure of the 14-3-3σ-deficient cells to sequester the proteins that initiate mitosis and prevent them from entering the nucleus. Thus, 14-3-3σ plays an important role in maintaining the G2 checkpoint in cells and preventing mitotic death.

References

1. Chan, T A. et al : 14-3-3-sigma is required to prevent mitotic catastrophe after DNA damage. Nature 401: 616-620, 1999.
2. Hermeking, H. et al: 14-3-3-sigma is a p53-regulated inhibitor of G2/M progression. Molec. Cell 1: 3-11, 1997.

Purity



The purity of 14-3-3θ was determined to be **>90%** by densitometry. Approx. MW **51kDa**.

14-3-3σ Protein

Full-length recombinant protein expressed in E. coli cells

Catalog Number	Y86-30G
Specific Lot Number	U255-1
Purity	>90%
Concentration	0.2 µg/µl
Stability	1yr At –70°C from date of shipment
Storage & Shipping	Store product at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
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