Product Data Sheet

Product Name:	C12ORF5 Human, TAT
Cat. No.:	GP22920
Batch No.:	1

Product Data

Purity	>98%	Source	Escherichia Coli.
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Fructose-2;6-bisphosphatase TIGAR; TP53-induced glycolysis and apoptosis regulator; TIGAR; C12orf5.		
Amino Acid Sequence	MARFALTVVR HGETRFNKEK IIQGQGVDEP LSETGFKQAA AAGIFLNNVK FTHAFSSDLM RTKQTMHGIL ERSKFCKDMT VKYDSRLRER KYGVVEGKAL SELRAMAKAA REECPVFTPP GGETLDQVKM RGIDFFEFLC QLILKEADQK EQFSQGSPSN CLETSLAEIF PLGKNHSSKV NSDSGIPGLA ASVLVVSHGA YMRSLFDYFL TDLKCSLPAT LSRSELMSVT PNTGMSLFII NFEEGREVKP TVQCICMNLQ DHLNGLTETR GGYGRKKRRQ RRR.		
Solubility	It is recommended to reconstitute the lyophilized TIGAR in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	TIGAR was Lyophilized from a 0.2µm filtered concentrated solution in 20mM PBS, pH7.0, 350mM NaCl and 5% Trehalose.		

Introduction

TIGAR is a p53-inducible enzyme which catalyzes the hydrolysis of fructose-2-6 bisphosphate (F-2-6-BP) to fructose-6-phosphate and inorganic phosphate. F-2-6-BP is an influential activator of 6-phosphofructose-1 kinase (the rate limiting enzyme of glycolysis). By lowering the intracellular level of F-2-6-BP, TIGAR expression leads to increased glucose processing through the pentose phosphate pathway, the main cellular source for NADPH. Protein transduction using TAT fusion proteins represents an alternative methodology for introducing transcription factors and other intracellular proteins into primary as well as transformed cells.

Biological Activity

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

The Specific Activity was measured by its ability to protect U2OS cells from apoptosis induced by hydrogen peroxide is in a concentration range of 0.1-5.0 µg/ml, after pretreating with rHuTIGAR-TAT for 4 hours.

Stability

Lyophilized TIGAR stable at room temperature for 3 weeks, should be stored desiccated below -18C. Upon reconstitution TIGAR should be stored at 4C between 2-7 days and for future use below -18C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Background

TIGAR Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 283 amino acids (including the 270 residues of full-length TIGAR and a 13-residue C-terminal TAT peptide) and having a molecular mass of 31.7kDa. The TIGAR is purified by proprietary chromatographic techniques.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA