

TIGAR-TAT Human E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RBG10318005	(5 µg)
Species: Human	RBG10318025	(25 µg)
Other names: TP53-induced glycolysis and apoptosis regulator (TIGAR)	RBG10318100	(100 µg)

Description

TIGAR is a p53-inducible enzyme that catalyzes the hydrolysis of fructose-2-6 biphosphate (F-2-6-BP) to fructose-6-phosphate and inorganic phosphate. F-2-6-BP is a powerful 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 via the pentose phosphate pathway, the major 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. Recombinant Human TIGAR-TAT expressed in E. coli is a 31.6 kDa protein containing 283 amino acid residues, including the 269 residues of full-length TIGAR fused to a 14-residue C-terminal peptide containing the TAT transduction domain (GGGYGRKKRRQRRR).

Research topic

Apoptosis, Oncology

Amino Acid Sequence

ARFALTVVRH GETRFNKEKI IQQGVDPEL SETGFKQAAA AGIFLNNVKF THAFSSDLMR TKQTMHGILE RSKFCKDMTV
KYDSRLRERK YGVVEGKALS ELRAMAKAAR EECPVFTPPG GETLDQVKMR GIDFFEFLCQ LILKEADQKE QFSQGSPSNC
LETSLAEIFP LGKNHSSKVN SDSGIPGLAA SVLVVSHGAY MRSLFDYFLT DLKCSLPATL SRSELMSVTP NTGMSLFIIN
FEEGREVKPT VQCICMNLQD HLNGLTETRG GGYGRKKRRQ RRR

Source

E. coli

Purity

95%

Biological Activity

Pretreatment with TIGAR-TAT for 4 hrs, using a concentration range 0.1-5.0 µg/ml, protects U2OS cells from apoptosis induced by hydrogen peroxide.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

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