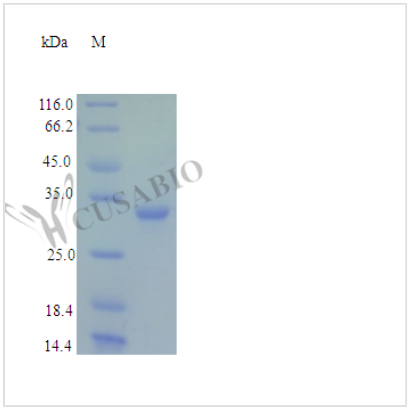
Recombinant Human Fructose-2,6-bisphosphatase TIGAR protein (TIGAR) (Active)

Product Code	CSB-AP000111HU
Abbreviation	Recombinant Human TIGAR protein (Active)
Uniprot No.	Q9NQ88
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 m filtered 30 % Acetonitrile, 0.1% TFA
Product Type	Enzyme
Immunogen Species	Homo sapiens (Human)
Biological Activity	Fully biologically active when compared to standard. The biological activity determined 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.
Purity	>96% as determined by SDS-PAGE.
Sequence	MARFALTVVRHGETRFNKEKIIQGQGVDEPLSETGFKQAAAAGIFLNNVKFTHA FSSDLMRTKQTMHGILERSKFCKDMTVKYDSRLRERKYGVVEGKALSELRAM AKAAREECPVFTPPGGETLDQVKMRGIDFFEFLCQLILKEADQKEQFSQGSPS NCLETSLAEIFPLGKNHSSKVNSDSGIPGLAASVLVVSHGAYMRSLFDYFLTDL KCSLPATLSRSELMSVTPNTGMSLFIINFEEGREVKPTVQCICMNLQDHLNGLT ETR+GGYGRKKRRQ
Research Area	Cell Biology
Source	E.coli
Target Names	TIGAR
Expression Region	1-270aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal TAT-tagged
Mol. Weight	31.7 kDa
Protein Length	Full Length
PubMed ID	11062477; 14702039; 15489334; 16140933; 16839880; 17525332; 19713938; 19015259; 19608861; 21269460; 21820150; 22887998; 23185017; 23817040; 23726973; 25928429;
Image	



Description

To generate a recombinant human fructose-2,6-bisphosphatase TIGAR protein in E. coli, the full-length human TIGAR gene is inserted into an expression vector containing a C-terminal TAT-tag. The recombinant plasmid is then transformed into E. coli cells for protein production. Following expression, the cells are harvested, and the recombinant TIGAR protein is purified the cell lysate. The purity of the recombinant TIGAR protein exceeds 96% as determined by both SDS-PAGE and HPLC analysis. The activity of the recombinant TIGAR protein is assessed by its ability to protect U2OS cells from apoptosis induced by hydrogen peroxide. After pretreatment with the purified rHuTIGAR-TAT protein for 4 hours, the concentration range of 0.1-5.0 μg/ml demonstrates this recombinant TIGAR protein's efficacy in preserving cell viability. Its endotoxin is less than 1.0 EU/μg as determined by the LAL method.

Endotoxin

Less than 1.0 EU/μg as determined by LAL method.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.
Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.