

Recombinant Human ATF1 Protein (His Tag)

Catalog No. PKSH032035

Note: Centrifuge before opening to ensure complete recovery of vial contents.

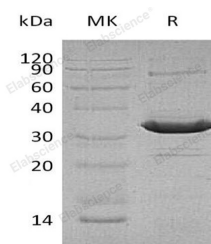
Description

Synonyms	Cyclic AMP-dependent transcription factor ATF-1;cAMP-dependent transcription factor ATF-1;Activating transcription factor 1;
Species	Human
Expression Host	E.coli
Sequence	Met 1-Val271
Accession	P18846
Calculated Molecular Weight	30.3 kDa
Observed molecular weight	32 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Cyclic AMP-dependent transcription factor ATF-1(ATF1) which contains 1 bZIP (basic-leucine zipper) domain and 1

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KID (kinase-inducible) domain, belongs to the bZIP family. It influences cellular physiologic processes by regulating the expression of downstream target genes, which are related to growth, survival, and other cellular activities. ATF1 binds the cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), a sequence present in many viral and cellular promoters. It also binds to the Tax-responsive element (TRE) of HTLV-I. ATF1 mediates PKA-induced stimulation of CRE-reporter genes, represses the expression of FTH1 and other antioxidant detoxification genes, triggers cell proliferation and transformation. ATF1 is phosphorylated at serine 63 in its kinase-inducible domain by serine/threonine kinases, cAMP-dependent protein kinase A, calmodulin-dependent protein kinase I/II, mitogen- and stress-activated protein kinase and CDK3. Its phosphorylation enhances its transactivation and transcriptional activities, and enhances cell transformation.