Data Sheet (Cat.No.TMPH-02613)

TargetMol

ATF-5 Protein, Mouse, Recombinant (His & Myc)

General Information

Synonyms:	NAP1;Cyclic AMP-dependent transcription factor ATF-5;Transcription factor-like protein ODA-10;Atf5;cAMP-dependent transcription factor ATF-5;NRIF3-associated protein;Activating transcription factor 5-alpha/beta;Atfx;Transcription factor ATFx;BZIP protein ATF7
Protein Construction:	1-283 aa
Species:	Mouse
Expression Host:	E. coli
Accession:	O70191
Molecular Weight:	37.8 kDa (predicted)
AA Sequence:	MSLLATLGLELDRALLPASGLGWLVDYGKLPLAPAPLGPYEVLGGALEGGLPGGGEPLAGDGFSDWMTERVD FTALLPLEAPLPPGTLPPPSPAPPDLEAMASLLKKELEQMEDFFLDAPLLPPPSPPPPPPPAAAPSLPLPLPLPT FDLPQPPTLDTLDLLAVYCRSEAGPGDSGLSTLPVPQQPPPLAPLPSPARPAPYPSPASTRGDRKQKKRDQN KSAALRYRQRKRAEGEALEGECQGLEARNRELRERAESVEREIQYVKDLLIEVYKARSQRTRST

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Transcription factor that either stimulates or represses gene transcription through binding of different DNA regulatory elements such as cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), ATF5-specific response element (ARE) (consensus: 5'-C[CT]TCT[CT]CCTT[AT]-3') but also the amino acid response element (AARE), present in many viral and cellular promoters. Critically involved, often in a cell type-dependent manner, in cell survival, proliferation, and differentiation. Its transcriptional activity is enhanced by CCND3 and slightly inhibited by CDK4. Important regulator of the cerebral cortex formation, functions in cerebral cortical neuroprogenitor cells to maintain proliferation and to block differentiation into neurons. Must be down-regulated in order for such cells to exit the cycle and differentiate. Participates in the pathways by which SHH promotes cerebellar granule neuron progenitor cells proliferation. Critical for survival of mature olfactory sensory neurons (OSN), directs expression of OSN-specific genes. May be involved in osteogenic differentiation. Promotes cell proliferation and survival by inducing the expression of EGR1 sinergistically with ELK1. Once acetylated by EP300, binds to ARE sequences on target genes promoters, such as BCL2 and EGR1. Plays an anti-apoptotic role through the transcriptional regulation of BCL2, this function seems to be cell type-dependent. Cooperates with NR1I3/CAR in the transcriptional activation of CYP2B6 in liver. In hepatic cells, represses CRE-dependent transcription and inhibits proliferation by blocking at G2/M phase. May act as a negative regulator of IL1B transduction pathway in liver. Upon IL1B stimulus, cooperates with NLK to activate the transactivation activity of C/EBP subfamily members. Besides its function of transcription factor, acts as a cofactor of CEBPB to activate CEBPA and promote adipocyte differentiation. Regulates centrosome dynamics in a cell-cycle- and centriole-age-dependent manner. Forms 9-foci symmetrical ring scaffold around the mother centriole to control centrosome function and the interaction between centrioles and pericentriolar material.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481