

## ATF2 Protein, Human (sf9, His-GST)

Cat. No.:	HY-P74408
Synonyms:	Activating transcription factor 2; ATF2; CREB2; HB16
Species:	Human
Source:	Sf9 insect cells
Accession:	P15336 (M1-S505)
Gene ID:	1386
Molecular Weight:	Approximately 85 kDa

### PROPERTIES

Appearance	Solution
Formulation	Supplied as a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, pH 8.0, 10% Glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

### DESCRIPTION

Background	<p>ATF2, a transcriptional activator, orchestrates the regulation of various genes involved in anti-apoptosis, cell growth, and the DNA damage response. It exhibits dual DNA-binding capabilities, recognizing CRE and AP-1 consensus sequences, and plays a pivotal role in global transcription within the nucleus. Outside the nucleus, ATF2 interacts with HK1- and VDAC1-containing complexes at the mitochondrial outer membrane, disrupting mitochondrial membrane potential and inducing cell death. The phosphorylated form, mediated by ATM, contributes to the DNA damage response, participating in ionizing radiation-induced S phase checkpoint control and recruiting the MRN complex to damage sites. ATF2 also possesses histone acetyltransferase (HAT) activity, specifically acetylating histones H2B and H4. In collaboration with CUL3 and RBX1, ATF2 promotes the degradation of KAT5, modulating its ability to acetylate and activate ATM. ATF2 exhibits context-dependent oncogenic or tumor suppressor activities, forming dimers with itself or with JUN. Interactions with SMAD3, SMAD4, UTF1, HK1/VDAC1 complex, and several other proteins further highlight ATF2's intricate involvement in cellular processes.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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