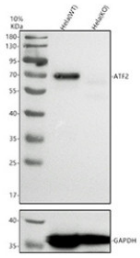
ATF2 Rabbit Monoclonal Antibody IA-1 / Activating Transcription Factor 2 Antibody [clone IA-1] (RQ5447)

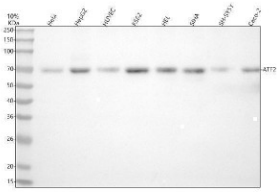
Catalog No.	Formulation	Size
RQ5447	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

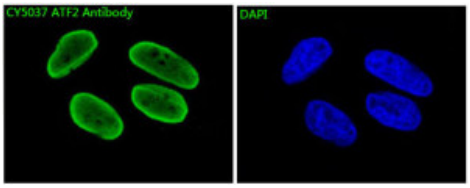
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	IA-1
Purity	Affinity purified
UniProt	P15336
Applications	Western blot: 1:500 Immunofluorescence: 1:50 Immunohistochemistry (FFEP): 2ug/ml
Limitations	This ATF2 Rabbit Monoclonal Antibody IA-1 / Activating Transcription Factor 2 Antibody is available for research use only.



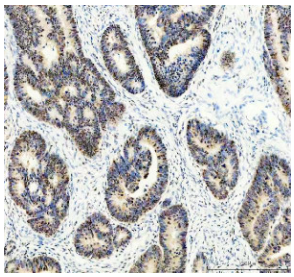
ATF2 Rabbit Monoclonal Antibody IA-1 WB Analysis of HeLa WT and ATF2 KO Cell Lysates. Western blot analysis of human HeLa wild-type (lane 1) and ATF2 knockout (lane 2) whole-cell lysates using Activating Transcription Factor 2 Antibody clone IA-1. An immunoreactive band is detected at approximately 70 kDa in wild-type cells and is absent from the ATF2 knockout sample. The calculated molecular weight of ATF2 is approximately 54.5 kDa, while the observed band migrates near 70 kDa. GAPDH is shown as a loading control.



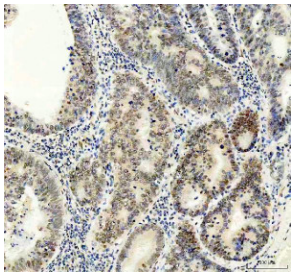
ATF2 Rabbit Monoclonal Antibody IA-1 WB Analysis of HeLa, HepG2, HUVEC, K562, HEL, SiHa, SH-SY5Y and Caco-2 Lysates. Western blot analysis of human HeLa (lane 1), HepG2 (lane 2), HUVEC (lane 3), K562 (lane 4), HEL (lane 5), SiHa (lane 6), SH-SY5Y (lane 7), and Caco-2 (lane 8) whole-cell lysates using Activating Transcription Factor 2 Antibody clone IA-1. Immunoreactive bands are detected at approximately 70 kDa, consistent with the reported electrophoretic migration of ATF2. The calculated molecular weight is approximately 54.5 kDa.



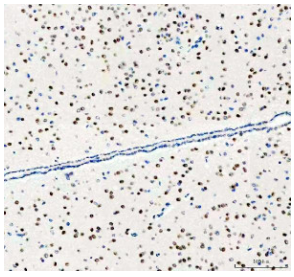
ATF2 Rabbit Monoclonal Antibody IA-1 IF Staining of Human HeLa Cells. Immunofluorescence analysis of human HeLa cells using Activating Transcription Factor 2 Antibody clone IA-1. Green fluorescence demonstrates ATF2-associated staining in nuclear and cytoplasmic regions, including prominent fluorescence surrounding portions of the nuclei. Nuclei are counterstained with DAPI in blue. Separate fluorescence channels are shown.



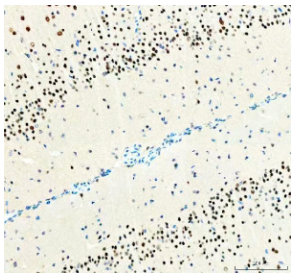
ATF2 Rabbit Monoclonal Antibody IA-1 IHC Staining of Human Colon Cancer. Immunohistochemical analysis of FFPE human colon cancer tissue using Activating Transcription Factor 2 Antibody clone IA-1. Brown DAB immunoreactivity is observed in malignant glandular epithelial cells, with nuclear and cytoplasmic staining. Heat-induced epitope retrieval was performed using EDTA buffer at pH 8.0. Nuclei are counterstained with hematoxylin.



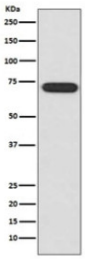
ATF2 Rabbit Monoclonal Antibody IA-1 IHC Staining of Human Stomach Cancer. Immunohistochemical analysis of FFPE human stomach cancer tissue using Activating Transcription Factor 2 Antibody clone IA-1. Brown DAB immunoreactivity is observed in tumor epithelial cells, including nuclear and cytoplasmic staining. Heat-induced epitope retrieval was performed using EDTA buffer at pH 8.0. Nuclei are counterstained with hematoxylin.



ATF2 Rabbit Monoclonal Antibody IA-1 IHC Staining of Mouse Brain Tissue. Immunohistochemical analysis of FFPE mouse brain tissue using Activating Transcription Factor 2 Antibody clone IA-1. Brown DAB immunoreactivity is observed predominantly in the nuclei of cells distributed throughout the brain section. Heat-induced epitope retrieval was performed using EDTA buffer at pH 8.0. Nuclei are counterstained with hematoxylin.



ATF2 Rabbit Monoclonal Antibody IA-1 IHC Staining of Rat Brain Tissue. Immunohistochemical analysis of FFPE rat brain tissue using Activating Transcription Factor 2 Antibody clone IA-1. Brown DAB immunoreactivity is observed in numerous cell nuclei, including cells within densely populated regions of the brain section. Heat-induced epitope retrieval was performed using EDTA buffer at pH 8.0. Nuclei are counterstained with hematoxylin.



Western blot testing of human HeLa cell lysate with ATF2 Antibody IA-1. Expected molecular weight: 65-70 kDa.

Description

ATF2 Rabbit Monoclonal Antibody IA-1 / Activating Transcription Factor 2 Antibody targets ATF2, a member of the activating transcription factor/cAMP response element-binding (ATF/CREB) family of transcriptional regulators. ATF2 contains a basic leucine zipper (bZIP) domain that mediates DNA binding and protein dimerization. It recognizes cAMP response elements and related regulatory sequences, functioning as a homodimer or forming heterodimers with transcription factors such as c-Jun. Through these interactions, ATF2 regulates gene expression associated with cellular stress, proliferation, differentiation, inflammation, and survival. Its transcriptional activity is influenced by phosphorylation, protein interactions, and changes in chromatin organization.

ATF2 is an important downstream target of mitogen-activated protein kinase signaling. Stress-responsive kinases, particularly p38 MAPK and JNK, phosphorylate ATF2 at Thr69 and Thr71, promoting its transcriptional activity. These signaling events connect extracellular stimuli and intracellular stress responses to changes in gene expression. ATF2 participates in the regulation of genes involved in inflammatory signaling, cell cycle progression, and adaptation to environmental challenges. Its activity depends on cellular context, the availability of dimerization partners, and interactions with other transcriptional regulators.

In addition to its DNA-binding function, ATF2 has been associated with chromatin regulation and the cellular response to DNA damage. Studies have described histone acetyltransferase activity toward histones H2B and H4 in vitro, suggesting a potential role in modifying chromatin accessibility. ATF2 also participates in signaling events associated with genomic stability and DNA damage responses. Its biological functions extend beyond conventional transcriptional activation, reflecting the importance of subcellular localization and post-translational regulation in determining ATF2 activity.

Altered ATF2 signaling has been investigated in cancer, inflammatory disorders, and conditions involving cellular stress. Depending on tissue type and signaling context, ATF2 can contribute to either tumor-promoting or tumor-suppressive processes. Its interactions with AP-1 family proteins and stress-activated kinases influence transcriptional programs that affect cell fate and adaptation. ATF2 Rabbit Monoclonal Antibody IA-1 supports research into these regulatory mechanisms, particularly the relationship between MAPK signaling, transcription factor activity, and cellular responses to physiological and pathological stress.

For studies requiring a monoclonal alternative, explore our ATF2 Antibody PCRP-ATF2-1B4, which features HuProt protein microarray validation and complementary cellular staining data.

Application Notes

Optimal dilution of the ATF2 Rabbit Monoclonal Antibody IA-1 / Activating Transcription Factor 2 Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Activating Transcription Factor 2 was used as the immunogen for the ATF2 Rabbit Monoclonal Antibody IA-1.

Storage

Store the ATF2 Rabbit Monoclonal Antibody IA-1 at -20oC.

Alternate Names

Activating transcription factor 2 antibody, ATF-2 antibody, CRE-BP1 antibody, CRE binding protein 1 antibody, cAMP response element binding protein 2 antibody, CREB2 antibody, ATF2 transcription factor antibody, activating transcription factor-2 antibody, ATF2 DNA binding protein antibody, ATF2 leucine zipper protein antibody

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