

ATF5 Antibody (clone 4G5)
Mouse Monoclonal Antibody
Catalog # ALS14332**Specification**

ATF5 Antibody (clone 4G5) - Product Information

Application	IHC
Primary Accession	O9Y2D1
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	31kDa KDa

ATF5 Antibody (clone 4G5) - Additional Information**Gene ID** 22809**Other Names**

Cyclic AMP-dependent transcription factor ATF-5, cAMP-dependent transcription factor ATF-5, Activating transcription factor 5, Transcription factor ATFx, ATF5, ATFX

Target/Specificity

Human ATF5

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

ATF5 Antibody (clone 4G5) is for research use only and not for use in diagnostic or therapeutic procedures.

ATF5 Antibody (clone 4G5) - Protein Information**Name** ATF5**Synonyms** ATFX**Function**

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 (PubMed: [10373550](http://www.uniprot.org/citations/10373550), PubMed: [15358120](http://www.uniprot.org/citations/15358120), PubMed: [21212266](http://www.uniprot.org/citations/21212266), PubMed: [20654631](http://www.uniprot.org/citations/20654631)). Its transcriptional activity is enhanced by CCND3 and slightly

inhibited by CDK4 (PubMed:15358120). 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 (By similarity). Participates in the pathways by which SHH promotes cerebellar granule neuron progenitor cells proliferation (By similarity). Critical for survival of mature olfactory sensory neurons (OSN), directs expression of OSN-specific genes (By similarity). May be involved in osteogenic differentiation (PubMed:22442021). Promotes cell proliferation and survival by inducing the expression of EGR1 synergistically with ELK1. Once acetylated by EP300, binds to ARE sequences on target genes promoters, such as BCL2 and EGR1 (PubMed:21791614). Plays an anti- apoptotic role through the transcriptional regulation of BCL2, this function seems to be cell type-dependent (By similarity). Cooperates with NR1I3/CAR in the transcriptional activation of CYP2B6 in liver (PubMed:18332083). In hepatic cells, represses CRE-dependent transcription and inhibits proliferation by blocking at G2/M phase (PubMed:22528486, PubMed:18701499). May act as a negative regulator of IL1B transduction pathway in liver (PubMed:24379400). Upon IL1B stimulus, cooperates with NLK to activate the transactivation activity of C/EBP subfamily members (PubMed:25512613). Besides its function of transcription factor, acts as a cofactor of CEBPB to activate CEBPA and promote adipocyte differentiation (PubMed:24216764). 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 (PubMed:26213385).

Cellular Location

Cytoplasm. Nucleus {ECO:0000255|PROSITE-ProRule:PRU00978, ECO:0000269|PubMed:15358120, ECO:0000269|PubMed:22528486}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome Note=Actively transported to the centrosome and accumulated in the pericentriolar material (PCM) during G1 to M phase via a microtubule- dependent mechanism. During late telophase and cytokinesis, translocates from the centrosome to the midbody

Tissue Location

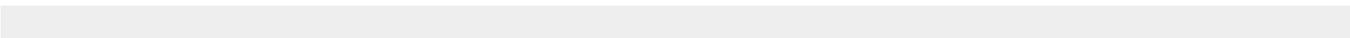
Widely expressed with higher expression levels in liver.

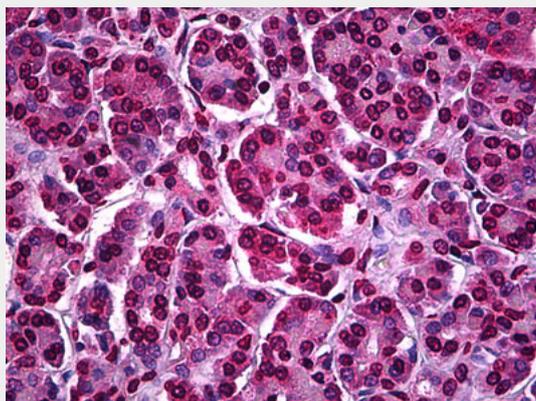
ATF5 Antibody (clone 4G5) - Protocols

Provided below are standard protocols that you may find useful for product applications.

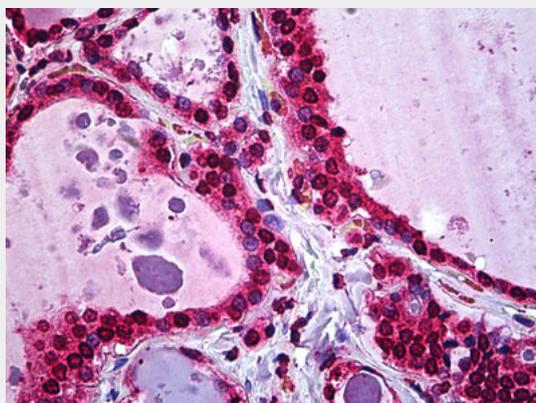
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ATF5 Antibody (clone 4G5) - Images





Anti-ATF5 antibody IHC of human pancreas.



Anti-ATF5 antibody IHC of human thyroid.

ATF5 Antibody (clone 4G5) - Background

Transcriptional activator which binds the cAMP response element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), a sequence present in many viral and cellular promoters and blocks the differentiation of neuroprogenitor cells into neurons. Its transcriptional activity is enhanced by CCND3 and slightly inhibited by CDK4.

ATF5 Antibody (clone 4G5) - References

White J.H., et al. Proc. Natl. Acad. Sci. U.S.A. 97:13967-13972(2000).
Yamada S., et al. Oncogene 23:5901-5911(2004).
Kohroki J., et al. Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.
Ota T., et al. Nat. Genet. 36:40-45(2004).
Grimwood J., et al. Nature 428:529-535(2004).