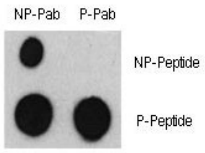
Phospho-ATF2 Ser322 Antibody / ATF2 Phospho Ser322 Polyclonal Antibody (F48498)

Catalog No.	Formulation	Size
F48498-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48498-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P15336
Applications	Dot blot: 1:500
Limitations	This Phospho-ATF2 Ser322 Antibody / ATF2 Phospho Ser322 Polyclonal Antibody is available for research use only.



Phospho-ATF2 Ser322 Antibody Dot Blot Analysis of Phosphorylated and Nonphosphorylated ATF2 Peptides. Dot blot analysis comparing phosphorylated and nonphosphorylated ATF2 peptides using ATF2 Phospho Ser322 Polyclonal Antibody (P-Pab) and a nonphosphorylated ATF2 antibody (NP-Pab). Each dot contains 50 ng of peptide. The phospho-specific antibody recognizes the Ser322-phosphorylated peptide without detectable reactivity toward the corresponding nonphosphorylated peptide. The nonphosphorylated ATF2 antibody reacts with both peptide preparations under the conditions tested, providing a comparison of phosphorylation-dependent recognition.

Description

Phospho-ATF2 Ser322 Antibody / ATF2 Phospho Ser322 Polyclonal Antibody targets activating transcription factor 2 (ATF2) phosphorylated at serine 322. ATF2 belongs to the ATF/CREB family of basic leucine zipper transcription factors and participates in the regulation of genes associated with cellular proliferation, differentiation, inflammation, and stress responses. It recognizes cyclic AMP response elements (CREs) and related regulatory DNA sequences, allowing it to influence transcriptional activity in response to intracellular signaling conditions.

ATF2 contains a basic DNA-binding domain and a leucine zipper region that facilitates interactions with other transcription factors. It can form homodimers or heterodimers with proteins such as c-Jun, contributing to activator protein 1 (AP-1) transcriptional complexes. These complexes regulate diverse transcriptional programs, and their activity depends on the composition of interacting proteins, available regulatory DNA sequences, and post-translational modifications affecting individual components.

Phosphorylation is an important mechanism controlling ATF2 function. The best-characterized activating phosphorylation events occur at Thr69 and Thr71, which are regulated by stress-responsive kinases including p38 MAPK and c-Jun N-terminal kinase (JNK). ATF2 also contains additional phosphorylation sites, including Ser322, that contribute to its broader post-translational modification profile. Unlike the extensively characterized Thr69 and Thr71 sites, the functional consequences and signaling mechanisms associated with Ser322 phosphorylation are less clearly established. Its phosphorylation status therefore represents a distinct aspect of ATF2 regulation requiring site-specific investigation.

ATF2 participates in cellular responses to inflammatory mediators, oxidative stress, ultraviolet radiation, and DNA damage. Beyond its conventional transcription factor activity, ATF2 has been reported to exhibit histone acetyltransferase activity under experimental conditions, suggesting a connection between transcriptional regulation and chromatin modification. Altered ATF2 signaling has also been investigated in cancer and other disorders involving dysregulated cellular stress responses. The biological consequences of ATF2 activity depend on phosphorylation status, interacting proteins, and cellular context.

Phospho-ATF2 Ser322 Antibody supports research into this specific phosphorylation event and its potential relationship to ATF2 regulation. Investigating Ser322 phosphorylation alongside established activating sites and total ATF2 expression may help clarify how multiple post-translational modifications contribute to the control of transcription factor function.

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

Titration of the Phospho-ATF2 Ser322 Antibody / ATF2 Phospho Ser322 Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-ATF2 Ser322 Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS322 of human ATF2.

Storage

Aliquot the Phospho-ATF2 Ser322 Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

ATF2 phospho Ser322 antibody, ATF2 phosphorylated Ser322 antibody, Phospho-ATF2 S322 antibody, ATF2 pS322 antibody, Phosphorylated activating transcription factor 2 antibody, Phospho-ATF-2 Ser322 antibody, Phospho-CREB2 Ser322 antibody, ATF2 phosphoserine 322 antibody, Activating transcription factor 2 phospho S322 antibody, ATF2 Ser322 phospho-specific antibody

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