

Product datasheet for **AP20740PU-N**

CREB1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500 - 1/1000. Immunohistochemistry on paraffin sections 1/50 - 1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of CREB protein. (region surrounding Lys123)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 38 kDa
Gene Name:	cAMP responsive element binding protein 1
Database Link:	<u>Entrez Gene 12912 Mouse</u> <u>Entrez Gene 81646 Rat</u> <u>Entrez Gene 1385 Human</u> <u>P16220</u>



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Background:

Eukaryotic gene transcription is regulated by sequencespecific transcription factors that bind modular cis acting promoter and enhancer elements. The ATF/CREB transcription factor family binds the palindromic cAMP response element (CRE) octanucleotide TGACGTCA. The ATF/CREB family includes CREB-1, CREB-2 (also designated ATF-4), ATF-1, ATF-2 and ATF-3. This family of proteins contains highly divergent N-terminal domains, but shares a C-terminal leucine zipper for dimerization and DNA binding. Although CREB can bind to DNA in an unphosphorylated state, it cannot activate transcription. Phosphorylation of CREB on Ser 133 by protein kinase A facilitates its interaction with the CREB binding protein (CBP) and activates the basal transcription complex. CREB functions in neoglucogenesis through interactions with the nuclear coactivator PGC-1. CREB may play a role in the pathogenesis of type II diabetes and dilated cardiomyopathy.

Synonyms:

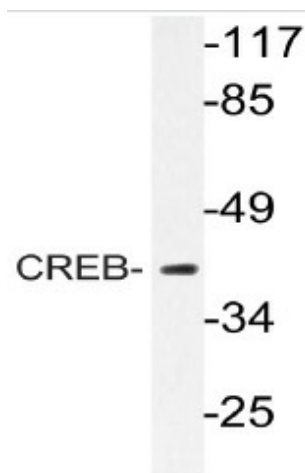
CREB-1

Protein Families:

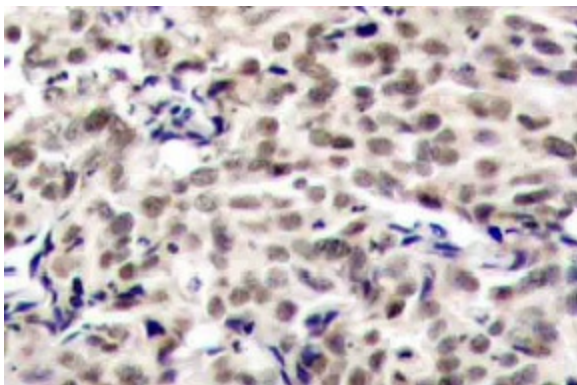
Druggable Genome, Transcription Factors

Protein Pathways:

Antigen processing and presentation, Huntington's disease, Melanogenesis, Prostate cancer

Product images:

Western blot (WB) analyzes of CREB antibody (Cat.-No.: AP20740PU-N) in extracts from HeLa cells.



Immunohistochemistry (IHC) analyzes of CREB antibody (Cat.-No.: AP20740PU-N) in paraffin-embedded human breast carcinoma tissue.