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For Research Use Only

IHC*easy*® CREB1 Ready-To-Use IHC Kit

Catalog Number: KHC1124

General Information

Sample type:
FFPE tissue

Cited sample type:

Reactivity:
Human, Mouse, Rat

Cited Reactivity:

Assay type:
Immunohistochemistry

Primary antibody type:
Mouse Monoclonal

Secondary antibody type:
Polymer-HRP-Goat anti-Mouse

Kit Component

Component	Size	Concentration
Antigen Retrieval Buffer	100 mL	50×
Washing Buffer	100 mL ×2	20×
Blocking Buffer	5 mL	RTU
Primary Antibody	5 mL	RTU
Secondary Antibody	5 mL	RTU
Chromogen Component A	0.2 mL	RTU
Chromogen Component B	4 mL	RTU
Signal Enhancer	5 mL	RTU
Counter Staining Reagent	5 mL	RTU
Mounting Media	5 mL	RTU
Control Slide	1 slide (Optional)	FFPE
Datasheet	1 Copy	
Manual	1 Copy	

Storage Instructions

All the reagents are stored at 2-8°C. The kit is stable for 6 months from the date of receipt.

Background

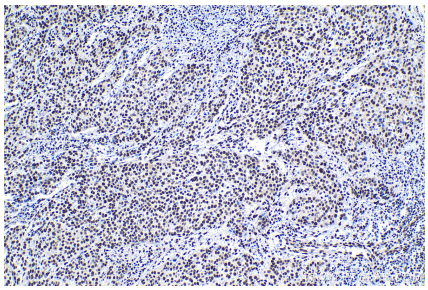
CREB1, also named as CREB, belongs to the bZIP family, containing one bZIP domain and one KID (kinase-inducible) domain. This protein binds the cAMP response element (CRE), a sequence present in many viral and cellular promoters. CREB stimulates transcription on binding to the CRE. This protein is stimulated by phosphorylation. Phosphorylation of both Ser-133 and Ser-142 in the SCN regulates the activity of CREB and participates in circadian rhythm generation. Phosphorylation of Ser-133 allows CREBBP binding. Transcription activation is enhanced by the TORC coactivators which act independently of Ser-133 phosphorylation. CREB1 is sumoylated by SUMO1. Sumoylation on Lys-304, but not on Lys-285, is required for nuclear localization of this protein. Sumoylation is enhanced under hypoxia, promoting nuclear localization and stabilization. Defects in CREB1 may be a cause of angiomatoid fibrous histiocytoma (AFH), a distinct variant of malignant fibrous histiocytoma that typically occurs in children and adolescents and is manifest by nodular subcutaneous growth. A chromosomal aberration involving CREB1 is found in a patient with angiomatoid fibrous histiocytoma. Translocation with CREB1 generates a EWSR1/CREB1 fusion gene that is most common genetic abnormality in this tumor type.

Synonyms

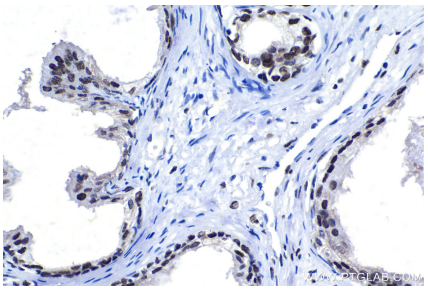
CREB, CREB 1, CREB1

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

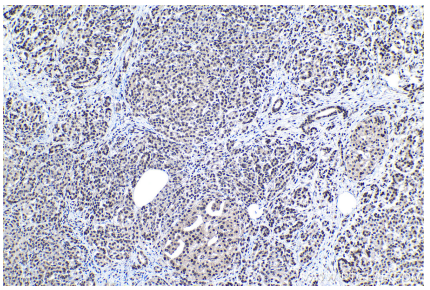
Selected Validation Data



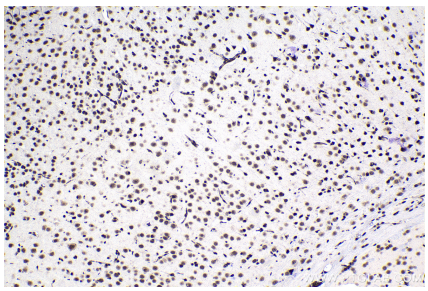
Immunohistochemical analysis of paraffin-embedded human cervical cancer tissue slide using KHC1124 (CREB1 IHC Kit).



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using KHC1124 (CREB1 IHC Kit).

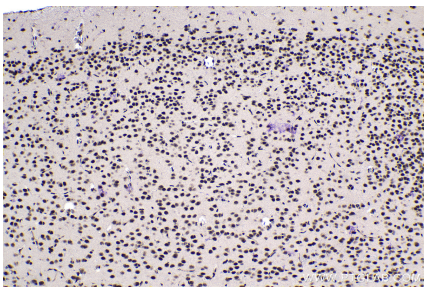


Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using KHC1124 (CREB1 IHC Kit).

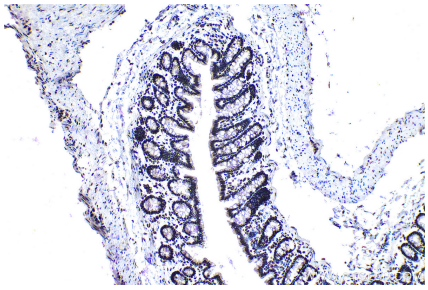


Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using KHC1124 (CREB1 IHC Kit).

Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using KHC1124 (CREB1 IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using KHC1124 (CREB1 IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat colon tissue slide using KHC1124 (CREB1 IHC Kit).