10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

BGLF4 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8057b

Product Information

Application	IHC-P, E
Primary Accession	P13288
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	48351
Antigen Region	386-417

Additional Information

Gene ID	3783704
Other Names	Serine/threonine-protein kinase BGLF4, BGLF4
Target/Specificity	This BGLF4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 386-417 amino acids from the C-terminal region of human BGLF4.
Dilution	IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	BGLF4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BGLF4
Function	Plays many key roles by phosphorylating several proteins including the viral DNA processivity factor BMRF1, EBNA1 or EBNA2. Modifies the host nuclear envelope structure and induces the redistribution of nuclear envelope-associated proteins by phosphorylating host nucleoporins. Subsequently, promotes the nuclear transport of EBV lytic proteins. Required for efficient lytic DNA replication and release of nucleocapsids from the

	nucleus. Contributes to the compaction of host cell chromatin in cells undergoing lytic replication, presumably by phosphorylating the host condensin complex and host TOP2A. Induces disassembly of the nuclear lamina by phosphorylating with host LMNA. Phosphorylates substrates involved in capsid assembly and DNA packaging. Facilitates the switch from latent to lytic DNA replication by down-regulating EBNA1 replication function. Phosphorylates the viral immediate-early protein BZLF1 and inhibits its sumoylation by interacting with host SUMO1 and SUMO2. Phosphorylates also host SAMHD1 and thereby counteracts its antiviral effect by reducing its dNTP hydrolase activity.
Cellular Location	Virion tegument. Host nucleus. Note=the protein is present at discrete sites in nuclei, called replication compartments where viral DNA replication occurs

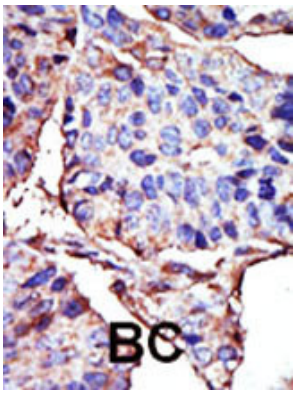
Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway.

References

Smith, R.F., et al., J. Virol. 63(1):450-455 (1989).
Baer, R., et al., Nature 310(5974):207-211 (1984).

Images



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Citations

- The Epstein-Barr virus (EBV)-encoded protein kinase, EBV-PK, but not the thymidine kinase (EBV-TK), is required for ganciclovir and acyclovir inhibition of lytic viral production.
- Simian virus 40 T/t antigens and lamin A/C small interfering RNA rescue the phenotype of an Epstein-Barr virus protein kinase (BGLF4) mutant.

- Hsp90 inhibitor 17-DMAG decreases expression of conserved herpesvirus protein kinases and reduces virus production in Epstein-Barr virus-infected cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.