

## Basic Information

<b>Product Name</b>	Anti-Histone H3 (Phospho-S10) Antibody (Clone#BAE-8)		
<b>Gene Name</b>	H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12		
<b>Source</b>	Rabbit		
<b>Clonality</b>	Monoclonal		
<b>Isotype</b>	IgG		
<b>Species Reactivity</b>	human, mouse, rat		
<b>Tested Application</b>	WB, IHC, ICC/IF, IP		
<b>Contents</b>	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.		
<b>Immunogen</b>	A synthesized peptide derived from human Phospho-Histone H3 (S10) Variant histone H3 which replaces conventional H3 in a wide range of nucleosomes in active genes. Constitutes the predominant form of histone H3 in non-dividing cells and is incorporated into chromatin independently of DNA synthesis. Deposited at sites of nucleosomal displacement throughout transcribed genes, suggesting that it represents an epigenetic imprint of transcriptionally active chromatin. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template.		
<b>Concentration</b>	500 ug/ml		
<b>Purification</b>	Affinity-chromatography		
<b>Observed MW</b>	17 kDa		
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000	
	Immunohistochemistry (IHC):	1:50-200	
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-200	
	ImmunoPrecipitation (IP):	1:20	

## Storage

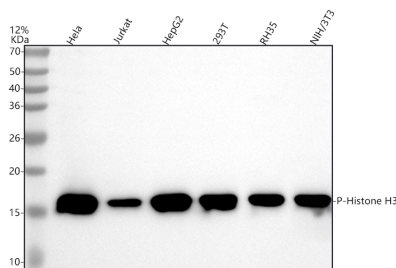
12 months from date of receipt, -20°C as supplied.

## Background Information

Histones are the main constituents of the protein part of chromosomes of eukaryotic cells. They are rich in the amino

acids arginine and lysine and have been greatly conserved during evolution. Histones pack the DNA into tight masses of chromatin. Two core histones of each class H2A, H2B, H3 and H4 assemble and are wrapped by 146 base pairs of DNA to form one octameric nucleosome. Histone tails undergo numerous post-translational modifications, which either directly or indirectly alter chromatin structure to facilitate transcriptional activation or repression or other nuclear processes. In addition to the genetic code, combinations of the different histone modifications reveal the so-called "histone code". Histone methylation and demethylation is dynamically regulated by respectively histone methyltransferases and histone demethylases.

## Selected Validation Data



Western blot analysis of anti-Histone H3 (Phospho-S10) antibody (BM4069). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human Jurkat whole cell lysates,

Lane 3: human HepG2 whole cell lysates,

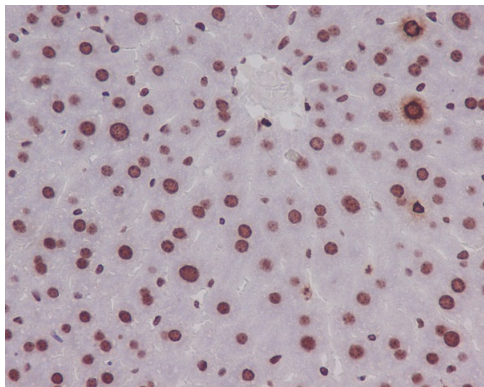
Lane 4: human 293T whole cell lysates,

Lane 5: rat RH-35 whole cell lysates,

Lane 6: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-Histone H3 (Phospho-S10) antigen affinity purified monoclonal antibody (BM4069) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Histone H3 (Phospho-S10) at approximately 17 kDa. The expected band size for Histone H3 (Phospho-S10) is at 15 kDa.



Immunohistochemical analysis of paraffin-embedded mouse liver,  
using Phospho-Histone H3 (S10) Antibody.