PRODUCT INFORMATION

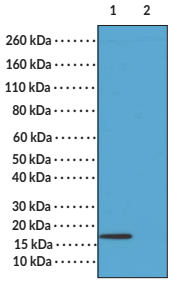
Anti-γH2AX (phospho-Ser139) Rabbit Monoclonal Antibody (Clone RM224)

Item No. 20721

Overview and Properties

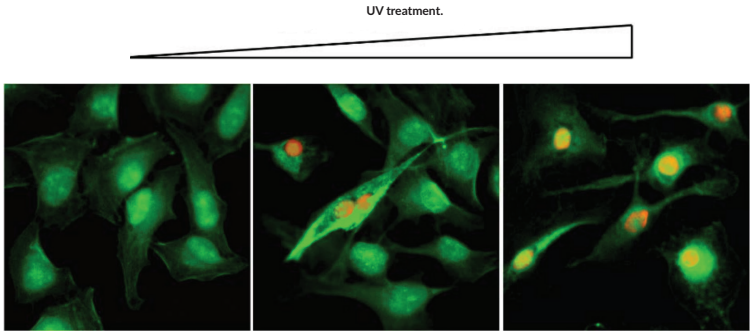
Contents:	This vial contains 100 µg of protein A affinity-purified antibody from an animal origin–free culture supernatant.
Immunogen:	A phospho-peptide corresponding to γH2AX (phospho-Ser139)
Cross Reactivity:	(+) Phospho-γH2AXSer139; (-) Other phosphorylated histones
Species Reactivity:	(+) All species
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	50% glycerol/PBS with 1% BSA and 0.09% sodium azide
Clone:	RM224
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA, Immunocytochemistry (ICC), Multiplex, and Western blot (WB); the recommended starting dilution for ELISA is 0.2 - 1 µg/ml, 0.5 - 2 µg/ml for ICC and WB, and 0.1 - 1 µg/ml for multiplex. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: (+) UV
Lane 2: (-) UV

Western blot of acid extracts of HeLa cells treated or non-treated with UV. Using Anti-γH2AX (phospho-Ser139) Rabbit Monoclonal Antibody (Clone RM224) at 0.5 µg/ml, showed a band of histone H2A.X phosphorylated at Ser139 in HeLa cells.



Immunocytochemistry of HeLa cells using Anti-γH2AX (phospho-Ser139) Rabbit Monoclonal Antibody (Clone RM224) (red). Actin filaments have been labeled with fluorescein phalloidin (green).

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Description

Histone H2AX, a variant of the nucleosome core histone H2A, undergoes phosphorylation on serine 139 in response to DNA damage, particularly when the damage involves formation of double-strand breaks. Phosphorylated H2AX is also termed γH2AX. Induction of γH2AX in cells exposed to genotoxic agents is considered a sensitive and specific reporter of DNA damage.[1] This antibody reacts to γH2AX when phosphorylated at Ser139 and does not detect other phosphorylated histones.

Reference

1. Huang, X., Tanaka, T., Kurose, A., *et al.* Constitutive histone H2AX phosphorylation on Ser-139 in cells untreated by genotoxic agents is cell-cycle phase specific and attenuated by scavenging reactive oxygen species. *Int. J. Oncol.* **29(2)**, 495-501 (2006).

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