

BRCA1 Rabbit pAb

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Catalog # AP94454

Product Information

Application	IHC-P, IHC-F, IF
Reactivity	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse BRCA1
Epitope Specificity	64-160/1812
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm; Nucleus. Localizes at sites of DNA damage at double-strand breaks (DSBs) and recruitment to DNA damage sites is mediated by the BRCA1-A complex.
DISEASE	Defects in BRCA1 are a cause of susceptibility to breastcancer (BC) [MIM:114480]. A common malignancy originating frombreast epithelial tissue. Breast neoplasms can be distinguished bytheir histologic pattern. Invasive ductal carcinoma is by far themost common type. Breast cancer is etiologically and geneticallyheterogeneous. Important genetic factors have been indicated byfamilial occurrence and bilateral involvement. Mutations at morethan one locus can be involved in different families or even in thesame case. Note=Mutations in BRCA1 are thought to be responsiblefor 45% of inherited breast cancer. Moreover, BRCA1 carriers have a4-fold increased risk of colon cancer, whereas male carriers face a3-fold increased risk of prostate cancer. Cells lacking BRCA1 showdefects in DNA repair by homologous recombination.Defects in BRCA1 are a cause of susceptibility tofamilial breast-ovarian cancer type 1 (BROVCA1) [MIM:604370]. Acondition associated with familial predisposition to cancer of thebreast and ovaries. Characteristic features in affected familiesare an early age of onset of breast cancer (often before age 50),increased chance of bilateral cancers (cancer that develop in bothbreasts, or both ovaries, independently), frequent occurrence ofbreast cancer among men, increased incidence of tumors of otherspecific organs, such as the prostate. Note=Mutations in BRCA1 arethought to be responsible for more than 80% of inheritedbreast-ovarian cancer.Defects in BRCA1 are a cause of susceptibility to ovariancancer (OC) [MIM:167000]. The term ovarian cancer definesmalignancies originating from ovarian tissue. Although manyhistologic types of ovarian tumors have been described, epithelialovarian carcinoma is the most common form. Ovarian cancers areoften asymptomatic and the recognized signs and symptoms, even oflate-stage disease, are vague. Consequently, most patients arediagnosed with advanced disease.Defects in BRCA1 are a cause of susceptibility topancreatic cancer type 4 (PNCA4)
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

This gene encodes a nuclear phosphoprotein that plays a role in maintaining genomic stability, and it also acts as a tumor suppressor. The encoded protein combines with other tumor suppressors, DNA damage sensors, and signal transducers to form a large multi-subunit protein complex known as the BRCA1-associated genome surveillance complex (BASC). This gene product associates with RNA polymerase II, and through the C-terminal domain, also interacts with histone deacetylase complexes. This protein thus plays a role in transcription, DNA repair of double-stranded breaks, and recombination. Mutations in this gene are responsible for approximately 40% of inherited breast cancers and more than 80% of inherited breast and ovarian cancers. Alternative splicing plays a role in modulating the subcellular localization and physiological function of this gene. Many alternatively spliced transcript variants, some of which are disease-associated mutations, have been described for this gene, but the full-length nature of only some of these variants has been described. A related pseudogene, which is also located on chromosome 17, has been identified. [provided by RefSeq, May 2009].

Additional Information

Dilution

IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=3ug/Test

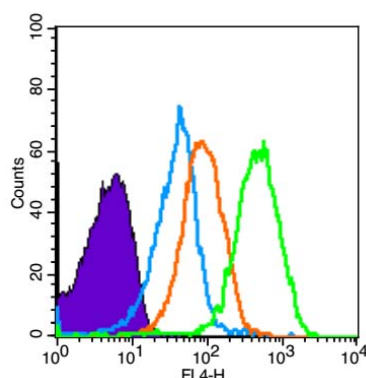
Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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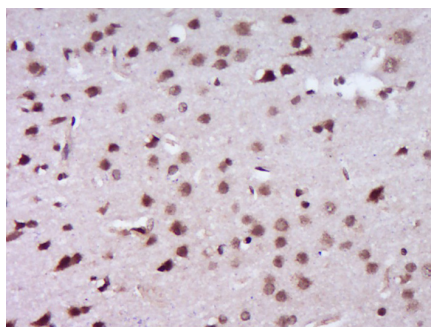
Images



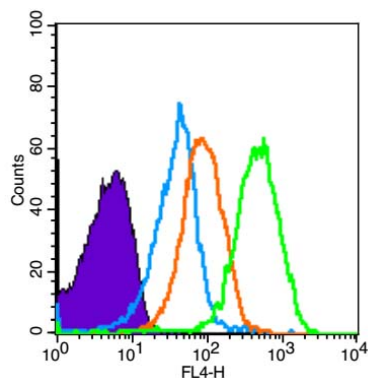
Blank control (Black line): Mouse spleen(Black).
Primary Antibody (green line): Rabbit Anti-BRCA1 antibody (AP94454)
Dilution: 3 µg /10⁶ cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647
Dilution: 1 µg /test.
Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 10,000 events was performed.

Paraformaldehyde-fixed, paraffin embedded (Rat brain);
Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer



(normal goat serum) at 37°C for 30min; Antibody incubation with (BRCA1) Polyclonal Antibody, Unconjugated (AP94454) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control (Black line): Mouse spleen(Black). Primary Antibody (green line): Rabbit Anti-BRCA1 antibody (AP94454) Dilution: 3 µg /10⁶ cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647 Dilution: 1 µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 10,000 events was performed.

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