



Rabbit Anti-FANCB/BRCA2 antibody

SL1210R

Product Name:	FANCB/BRCA2
Chinese Name:	乳腺癌易感基因2抗体
Alias:	BRCA 2; BRCA1/BRCA2 containing complex subunit 2; BRCC 2; BRCC2; Breast and ovarian cancer susceptibility gene early onset; Breast cancer 2 early onset; Breast Cancer 2 tumor suppressor; Breast cancer susceptibility protein BRCA2; Breast cancer type 2 susceptibility protein; FACD; FAD 1; FAD; FAD1; FANCB; FANCD 1; FANCD; FANCD1; Fanconi anemia complementation group D1; Fanconi anemia group D1 protein; OTTHUMP00000018803; OTTHUMP00000042401.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	384kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human BRCA2:21-130/3418
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	The Fanconi anemia complementation group (FANC) currently includes FANCA, FANCB, FANCC, FANCD1 (also called BRCA2), FANCD2, FANCE, FANCF,

FANCG, FANCI, FANCIJ (also called BRIP1), FANCL, FANCM and FANCN (also called PALB2). The previously defined group FANCI is the same as FANCA. Fanconi anemia is a genetically heterogeneous recessive disorder characterized by cytogenetic instability, hypersensitivity to DNA crosslinking agents, increased chromosomal breakage, and defective DNA repair. The members of the Fanconi anemia complementation group do not share sequence similarity; they are related by their assembly into a common nuclear protein complex. This gene encodes the protein for complementation group B. Alternative splicing results in two transcript variants encoding the same protein. [provided by RefSeq, Jul 2008]

Function:

Involved in double-strand break repair and/or homologous recombination. Binds RAD51 and potentiates recombinational DNA repair by promoting assembly of RAD51 onto single-stranded DNA (ssDNA). Acts by targeting RAD51 to ssDNA over double-stranded DNA, enabling RAD51 to displace replication protein-A (RPA) from ssDNA and stabilizing RAD51-ssDNA filaments by blocking ATP hydrolysis. May participate in S phase checkpoint activation. Binds selectively to ssDNA, and to ssDNA in tailed duplexes and replication fork structures. In concert with NPM1, regulates centrosome duplication.

Subunit:

Monomer and dimer. Interacts with RAD51; regulates RAD51 recruitment and function at sites of DNA repair. Interacts with DSS1. Interacts with both nonubiquitinated and monoubiquitinated FANCD2; this complex also includes XRCC3 and phosphorylated FANCG. Interacts with WDR16. Interacts with USP11. Interacts with DMC1. Part of a trimeric complex containing BRCA1, BRCA2 and PALB2. Interacts with PALB2. Interacts with BRCA1 only in the presence of PALB2 which serves as the bridging protein. Interacts with ROCK2 and NPM1.

Subcellular Location:

Nuclear protein.

Tissue Specificity:

Highest levels of expression in breast and thymus, with slightly lower levels in lung, ovary and spleen.

Post-translational modifications:

Phosphorylated by ATM upon irradiation-induced DNA damage. Phosphorylation by CHEK1 and CHEK2 regulates interaction with RAD51. Phosphorylation at Ser-3291 by CDK1 and CDK2 is low in S phase when recombination is active, but increases as cells progress towards mitosis; this phosphorylation prevents homologous recombination-dependent repair during S phase and G2 by inhibiting RAD51 binding. Ubiquitinated in the absence of DNA damage; this does not lead to proteasomal degradation. In contrast, ubiquitination in response to DNA damage leads to proteasomal degradation.

DISEASE:

Defects in BRCA2 are a cause of susceptibility to breast cancer (BC). A common malignancy originating from breast epithelial tissue. Breast neoplasms can be distinguished by their histologic pattern. Invasive ductal carcinoma is by far the most common type. Breast cancer is etiologically and genetically heterogeneous. Important genetic factors have been indicated by familial occurrence and bilateral involvement. Mutations at more than one locus can be involved in different families or even in the same case. Defects in BRCA2 are the cause of pancreatic cancer type 2 (PNCA2) [MIM:613347]. It is a malignant neoplasm of the pancreas. Tumors can arise from both the exocrine and endocrine portions of the pancreas, but 95% of them develop from the exocrine portion, including the ductal epithelium, acinar cells, connective tissue, and lymphatic tissue.

Similarity:

Contains 8 BRCA2 repeats.

SWISS:

P51587

Gene ID:

675

Database links:

[Entrez Gene: 675](#)Human

[Entrez Gene: 12190](#)Mouse

[Omim: 600185](#)Human

[SwissProt: P51587](#)Human

[SwissProt: P97929](#)Mouse

[Unigene: 34012](#)Human

[Unigene: 236256](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

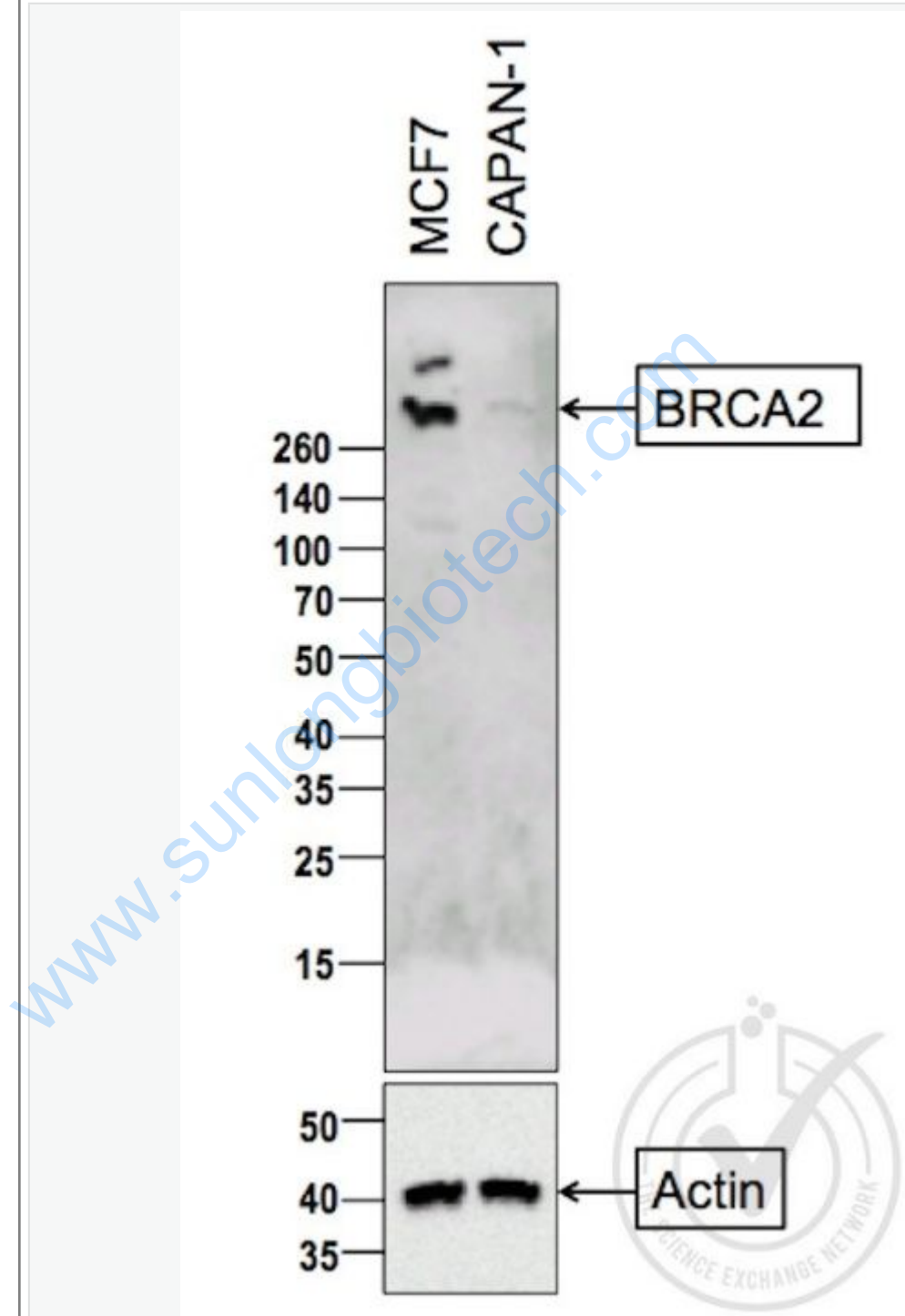
BRCA2蛋白与DNA修复和重组有关,

乳腺癌易感基因其突变和家族性乳腺癌、卵巢癌的发病有关。

BRCA2是新近发现的一个抑癌基因,它在流行病学上与早期发现的BRCA1有许多相似之处。有学者发现:BRCA2在其它BRCA2突变的家族中也发现多发有结肠癌、

肺癌、输尿管癌、脑瘤、胰腺癌和白血病等。BRCA2突变家族中这种Tumour的多样性在其它研究中也有报道。

Picture:



Sample:

MCF-7(Human) Cell Lysate at 30 ug

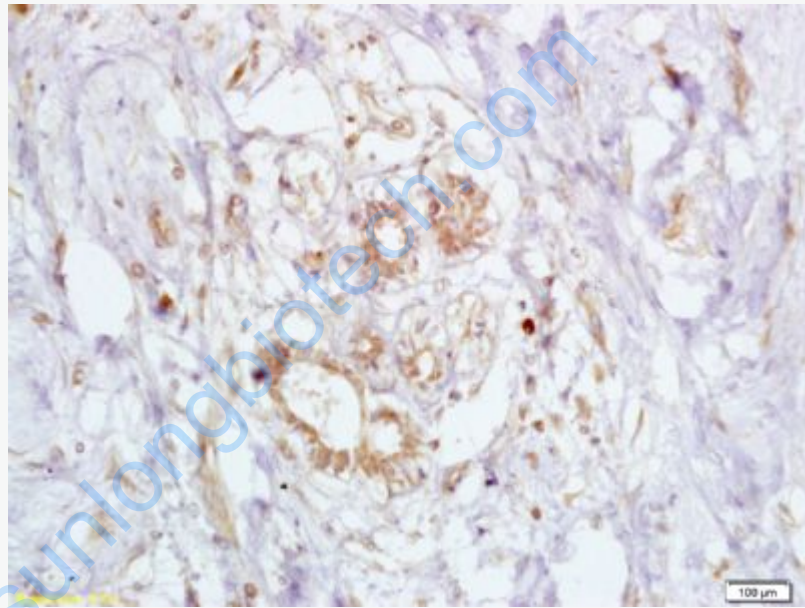
CAPAN1 (Human) Cell Lysate at 30 ug

Primary: Anti- BRCA2 (SL1210R) at 1/200 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/10000 dilution

Predicted band size: 384 kD

Observed band size: 384 kD



Tissue/cell: human breast carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-BRCA2/FANCB Polyclonal Antibody, Unconjugated(SL1210R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

