

## Product datasheet for **TA326774**

### BRCA1 Rabbit Polyclonal Antibody

#### Product data:

|                       |   |
|-----------------------|---|
| Product Type:         | Primary Antibodies  |
| Applications:         | IHC, WB   |
| Recommended Dilution: | WB 1:500 - 1:2000;IHC 1:50 - 1:200  |
| Reactivity:           | Human, Mouse, Rat   |
| Host:                 | Rabbit  |
| Isotype:              | IgG   |
| Clonality:            | Polyclonal  |
| Immunogen:            | Center-peptide of human BRCA1   |
| Formulation:          | Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3   |
| Concentration:        | lot specific  |
| Purification:         | Affinity purification   |
| Conjugation:          | Unconjugated  |
| Storage:              | Store at -20°C as received.   |
| Stability:            | Stable for 12 months from date of receipt.  |
| Gene Name:            | BRCA1, DNA repair associated  |
| Database Link:        | <a href="#">NP_009225</a><br><a href="#">Entrez Gene 12189 Mouse</a> <a href="#">Entrez Gene 497672 Rat</a> <a href="#">Entrez Gene 672 Human</a><br><a href="#">P38398</a> |



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**Background:**

The breast cancer susceptibility proteins BRCA1 and BRCA2 are frequently mutated in cases of hereditary breast and ovarian cancers and have roles in multiple processes related to DNA damage, repair, cell cycle progression, transcription, ubiquitination and apoptosis . BRCA2 has been shown to be required for localization of Rad51 to sites of double stranded breaks (DSBs) in DNA, and cells lacking BRCA1 and BRCA2 cannot repair DSBs through the Rad51-dependent process of homologous recombination (HR) . Numerous DNA-damage induced phosphorylation sites on BRCA1 have been identified, including serines 988, 1189, 1387, 1423, 1457, 1524 and 1542, and kinases activated in a cell cycle-dependent manner, including Aurora A and CDK2, can also phosphorylate BRCA1 at Ser308 and Ser1497, respectively . Cell cycle-dependent phosphorylation of BRCA2 at Ser3291 by CDKs has been proposed as a mechanism to switch off HR as cells progress beyond S-phase by blocking the carboxy-terminal Rad51 binding site .

**Synonyms:**

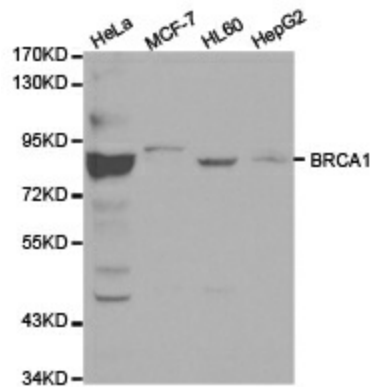
BRCA1; BRCC1; BROVCA1; FANCS; IRIS; PNCA4; PPP1R53; PSCP; RNF53

**Protein Families:**

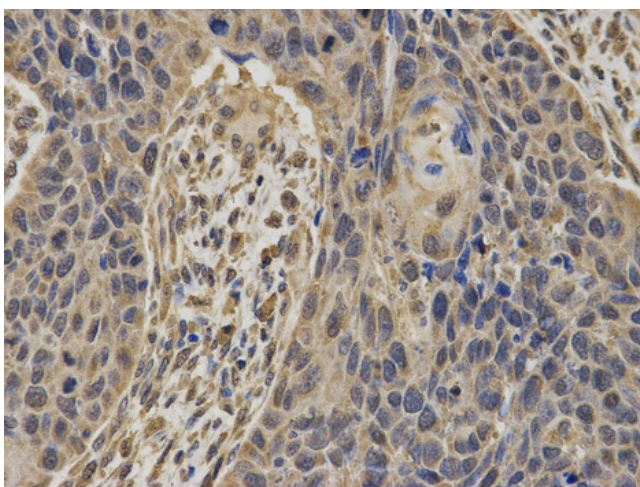
Druggable Genome, Transcription Factors

**Protein Pathways:**

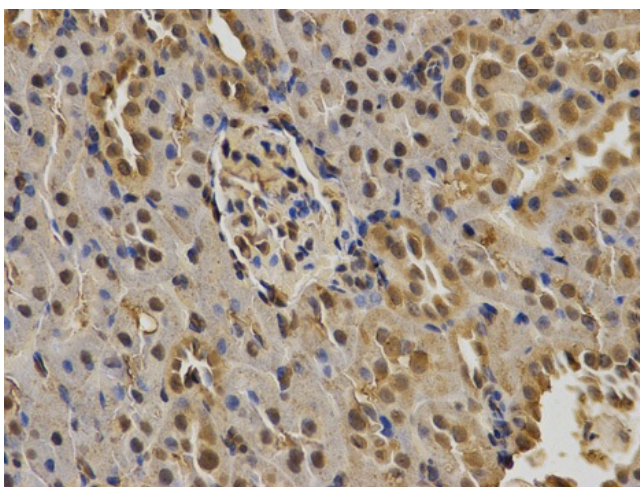
Ubiquitin mediated proteolysis

**Product images:**

Western blot analysis of extracts of various cell lines, using BRCA1 antibody.



Immunohistochemistry of paraffin-embedded human esophageal cancer using BRCA1 antibody at dilution of 1:100 (400x lens).



Immunohistochemistry of paraffin-embedded mouse lung using BRCA1 antibody at dilution of 1:100 (400x lens).