

# AB-PN690

## BRCA1-pT509 Antibody

Phosphosite-specific rabbit polyclonal antibody for BRCA1. This phospho-threonine-site antibody also cross-reacts with a phosphoserine substitution in the phosphosite.

Website: [www.kinexus.ca](http://www.kinexus.ca)  
Email: [info@kinexus.ca](mailto:info@kinexus.ca)  
Phone: 604-323-2547



Address: 8755 Ash Street, Suite 1  
Vancouver, British Columbia,  
Canada V6P 6T3

### Target Protein

|                                |                                                                                                                                                      |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Protein Name Long:</b>      | Breast cancer type 1 susceptibility protein                                                                                                          |
| <b>Protein Alias:</b>          | BRCA1/BRCA2-containing complex, subunit 1; BRCC1; Breast cancer 1, early onset; Familial breast/ovarian cancer gene 1; RING finger protein 53; RNF53 |
| <b>UniProt ID:</b>             | P38398                                                                                                                                               |
| <b>Protein Molecular Mass:</b> | 207,721 Da (1,863 AA)                                                                                                                                |

### Immunogen

|                                        |                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Antibody Immunogen Source:</b>      | Synthetic phosphopeptide patterned after human BRCA1                                                                                                                                                                                                                                                                                                                             |
| <b>Antibody Immunogen Sequence:</b>    | RRP(pT)SGL( $\beta$ A)C                                                                                                                                                                                                                                                                                                                                                          |
| <b>Antibody Immunogen Description:</b> | Corresponds to amino acid residues R506 to L512. T509 phosphorylation induces transcription. This is the major <i>in vivo</i> site of phosphorylation of BRCA1 by mass spectrometry studies ( $\geq 79$ reports). This human phosphosite is not highly conserved in nature, but is found in the mouse. BRCA1 is known to be phosphorylated at this site <i>in vitro</i> by Akt1. |
| <b>Antibody Target Type:</b>           | Phosphosite-specific                                                                                                                                                                                                                                                                                                                                                             |

### Production

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| <b>Antibody Host Species:</b>  | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Antibody Type:</b>          | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Antibody Isotype:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Production Method:</b>      | The immunizing peptide was produced by solid phase synthesis on a multi-peptide synthesizer and purified by reverse-phase hplc chromatography. Purity was assessed by analytical hplc and the amino acid sequence confirmed by mass spectrometry analysis. This peptide was coupled to KLH prior to immunization into rabbits. New Zealand White rabbits were subcutaneously injected with KLH-coupled immunizing peptide every 4 weeks for 4 months. The sera from these animals was applied onto an agarose column to which the immunogen peptide was thio-linked. Antibody was eluted from the column with 0.1 M glycine, pH 2.5. Subsequently, the antibody solution was neutralized to pH 7.0 with saturated Tris. |
| <b>Amount:</b>                 | 25 $\mu$ g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Antibody Concentration:</b> | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage Buffer:</b>         | Phosphate buffered saline pH 7.4, 0.05% Thimerasol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Storage Conditions:</b>     | For long term storage, keep frozen at $-40^{\circ}\text{C}$ or lower. Stock solution can be kept at $+4^{\circ}\text{C}$ for more than 3 months. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage Stability:</b>      | $>2$ years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## Applications

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|---------------------------------------|---------------------------------------------------|
| <b>Product Use:</b>                   | Western blotting   Antibody microarray            |
| <b>Antibody Dilution Recommended:</b> | 2 µg/ml for immunoblotting                        |
| <b>Antibody Species Reactivity:</b>   | Human   Chimpanzee   Rhesus macaque   Rat   Mouse |

This product is for *in vitro* research use only and is not intended for use in humans or animals.

For more information on our products please visit <https://kinexus-ca.myshopify.com/> or contact us at 1-866-546-3987