# AB-PN701

## G6PD-pY503+pY507 Antibody

Phosphosite-specific rabbit polyclonal antibody for G6PD

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## Target Protein

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| **Protein Name Long:** | Glucose-6-phosphate 1-dehydrogenase |
| **Protein Alias:** | G6PD; G6PD1; Glucose-6-phosphate 1-dehydrogenase; glucose-6-phosphate dehydrogenase |
| **UniProt ID:** | P11413 |
| **Protein Molecular Mass:** | 59,257 Da (515 AA; P11413-1); 63,827 Da (561 AA; P11413-2); 62,468 Da (545 AA; P11413-3) |

## Immunogen

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| **Antibody Immunogen Source:** | Synthetic phosphopeptide patterned after human G6PD |
| **Antibody Immunogen Sequence:** | GFQ(pY)EGT(pY)KWV(βA)C |
| **Antibody Immunogen Description:** | Corresponds to amino acid residues G500 to V510. The effects of Y503 and Y507 phosphorylation are unclear. These are two of the major *in vivo* phosphorylation sites in G6PD (≥961 and >771 reports, respectively, by mass spectrometry). These phosphosites are highly conserved in vertebrates and also found in the nematode worm. G6PD is known to be phosphorylated *in vitro* at Y507 by Src. |
| **Antibody Target Type:** | Phosphosite-specific |

## Production

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| **Antibody Host Species:** | Rabbit |
| **Antibody Type:** | Polyclonal |
| **Antibody Isotype:** | IgG |
| **Production Method:** | The immunizing peptide was produced by solid phase synthesis on a multipep 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. |
| **Amount:** | 25 µg |
| **Antibody Concentration:** | 0.6 mg/ml |
| **Storage Buffer:** | Phosphate buffered saline pH 7.4, 0.05% Thimerasol |
| **Storage Conditions:** | For long term storage, keep frozen at -40°C or lower. Stock solution can be kept at +4°C for more than 3 months. Avoid repeated freeze-thaw cycles. |
| **Storage Stability:** | >2 years |

## Applications

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| **Product Use:** | Western blotting \| Antibody microarray |
| **Antibody Dilution Recommended:** | 2 µg/ml for immunoblotting |
| **Antibody Species Reactivity:** | Human \| Rhesus macaque \| Dog \| Rat \| Mouse \| Platypus \| Frog\| Zebra fish \| Tiger blowfish |