

## Anti-Prion Protein (Ser-43), Phosphospecific Antibody Catalog # AN1919

### Specification

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#### Anti-Prion Protein (Ser-43), Phosphospecific Antibody - Product Information

Primary Accession	<a href="#">P04156</a>
Reactivity	Bovine
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	27661

#### Anti-Prion Protein (Ser-43), Phosphospecific Antibody - Additional Information

Gene ID	5621
<b>Other Names</b>	
PrP, PrPsc, PrPc	

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Anti-Prion Protein (Ser-43), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Shipping

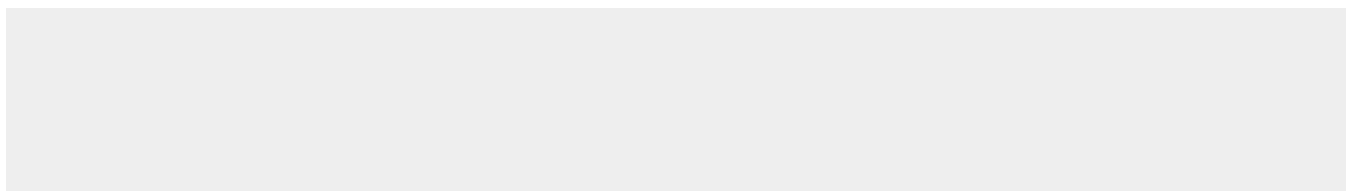
Blue Ice

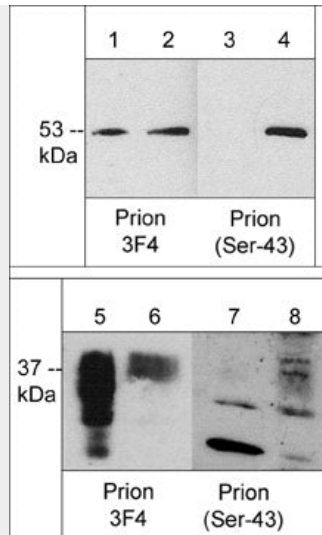
#### Anti-Prion Protein (Ser-43), Phosphospecific Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Anti-Prion Protein (Ser-43), Phosphospecific Antibody - Images





Western blot of GST recombinant human full-length prion protein that was untreated (lanes 1 and 3) or phosphorylated with Cdk5/p25 (lanes 2 & 4). Endogenous prion phosphorylation was examined in human PC3 cells untreated (lanes 5 & 7) or treated with Calyculin A (100 nM) for 30 min (lanes 6 & 8). The blots were probed with anti-Prion protein (3F4) (lanes 1, 2, 5, & 6) or anti-Prion protein (Ser-43) (lanes 3, 4, 7, & 8).

#### **Anti-Prion Protein (Ser-43), Phosphospecific Antibody - Background**

Prion related neurodegenerative diseases, called transmissible spongiform encephalopathies, are observed in many animal species. These diseases involve conversion of normal cellular prion protein (PrP<sup>c</sup>) into a form that is insoluble and resistant to proteases (PrP<sup>Sc</sup>). The protease resistant form can polymerize into fibrils which accumulate in infected tissues and cause cell death and tissue damage. PrPs have an N-terminal signal sequence and a C-terminal linkage to glycosylphosphatidylinositol anchor. The mature protein is a glycosylated protein that associates with cell membranes. Phosphorylation of PrP<sup>c</sup> at Ser-43 by Cdk5 promotes proteinase K resistance, prion aggregation, and fibril formation in vitro. In addition, Ser-43 phosphorylation is upregulated in scrapie-infected mouse brain relative to controls. Thus, phosphorylation of Ser-43 may be an important mechanism leading conversion of PrP<sup>c</sup> to PrP<sup>Sc</sup> and the onset of disease.