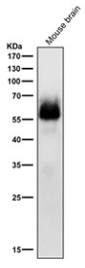
Phospho-Chk2 (pSer33/pSer35) Antibody / Checkpoint kinase 2 [clone 32C66] (FY12280)

Catalog No.	Formulation	Size
FY12280	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32C66
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	O96017
Applications	Western Blot : 1:500-1:2000
Limitations	This Phospho-Chk2 (pSer33/pSer35) antibody is available for research use only.



Western blot testing of mouse brain tissue lysate with Phospho-Chk2 (pSer33/pSer35) antibody at 1:1000 dilution for 1 hour at room temperature. Predicted molecular weight ~61 kDa.

Description

Phospho-Chk2 (pSer33/pSer35) antibody recognizes checkpoint kinase 2 (Chk2) when phosphorylated at serine 33 and serine 35. Chk2 is a serine/threonine kinase that plays a pivotal role in DNA damage response and cell cycle checkpoint

control. Upon DNA double-strand breaks, Chk2 becomes activated through phosphorylation by ATM kinase, leading to downstream regulation of p53, BRCA1, and other DNA repair proteins.

Phosphorylation at serine 33 and serine 35 represents an important activation step in the Chk2 signaling cascade. These phosphorylation sites stabilize protein conformation, enabling Chk2 to propagate signals that halt cell cycle progression and promote DNA repair. This ensures genomic integrity and prevents the accumulation of mutations that can lead to oncogenesis.

Phospho-Chk2 (pSer33/pSer35) antibody is instrumental in studies of DNA damage signaling, cancer biology, and cellular responses to genotoxic stress. It is used to track checkpoint activation following radiation exposure or chemotherapeutic treatment, making it highly relevant in translational oncology research.

This antibody is validated for use in western blot, immunohistochemistry, and immunofluorescence. Its specificity for the dual phosphorylated state allows clear distinction between activated Chk2 and inactive protein pools.

In cancer research, Chk2 phosphorylation status serves as a biomarker for the integrity of the DNA damage response pathway. Tumor cells with impaired checkpoint signaling exhibit genomic instability, and monitoring Chk2 activity helps define therapeutic vulnerabilities. In basic research, this antibody provides insights into the mechanisms of DNA repair, apoptosis, and genome maintenance.

Phospho-Chk2 (pSer33/pSer35) antibody offered by NSJ Bioreagents provides a powerful tool for investigating checkpoint regulation and the cellular defense against DNA damage. Its phospho-specificity ensures precise detection of active signaling states critical to maintaining genomic stability.

Application Notes

Optimal dilution of the Phospho-Chk2 (pSer33/pSer35) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-Chk2 (S33 + S35) was used as the immunogen for the Phospho-Chk2 (pSer33/pSer35) antibody.

Storage

Store the Phospho-Chk2 (pSer33/pSer35) antibody at -20oC.