

RTF2 Antibody / Replication termination factor 2 (FY12426)

Catalog No.	Formulation	Size
FY12426	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9BY42
Applications	ELISA: 0.1-0.5ug/ml Flow Cytometry: 1-3ug/million cells Immunoprecipitation: 2-4ug/500ug of lysate Immunofluorescence: 5ug/ml Immunocytochemistry: 5ug/ml Western Blot: 0.25-0.5ug/ml
Limitations	This RTF2 antibody is available for research use only.

Description

The RTF2 antibody targets Replication termination factor 2, a nuclear protein encoded by the RTF2 gene that functions in DNA replication and replication-fork stability. Replication termination factor 2 is a component of the replication-stress response pathway that safeguards genome integrity by promoting proper fork processing and restart. The RTF2 antibody provides an essential tool for studying DNA replication, repair mechanisms, and cell-cycle regulation.

Replication termination factor 2 associates with replication forks and interacts with the replisome to stabilize stalled replication structures. It is recruited to chromatin during S phase and removed after replication completion. The RTF2 antibody supports visualization of these dynamics, allowing researchers to monitor fork progression and resolution under genotoxic stress. RTF2 is critical for preventing aberrant fork degradation and double-strand break formation, thereby maintaining genomic stability.

Loss of RTF2 leads to replication defects, increased DNA damage signaling, and activation of checkpoint kinases such as

ATR and CHK1. The RTF2 antibody enables detection of expression changes in response to DNA damage or replication inhibitors, aiding studies into checkpoint control and genome maintenance. Its depletion causes hypersensitivity to replication-blocking agents and reduced cell viability, emphasizing its protective role during S phase.

Replication termination factor 2 also participates in fork restart after hydroxyurea-induced stalling, coordinating reloading of replication machinery components. The RTF2 antibody allows mechanistic studies of this recovery process, revealing how RTF2 collaborates with helicases and nucleases to reestablish replication competence. Dysregulation of RTF2 expression has been implicated in cancer development and progression due to impaired replication fidelity.

The RTF2 antibody performs effectively in western blotting, immunofluorescence, and immunohistochemistry, showing characteristic nuclear staining consistent with its role in DNA metabolism. NSJ Bioreagents provides this antibody with validated specificity and reproducibility for use in molecular-genetics, oncology, and replication research. By supporting detailed analysis of Replication termination factor 2, the RTF2 antibody advances understanding of DNA replication dynamics, fork stability, and genome-maintenance pathways.

Application Notes

Optimal dilution of the RTF2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human RTF2 recombinant protein (Position: D4-F306) was used as the immunogen for the RTF2 antibody.

Storage

After reconstitution, the RTF2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.