RTRAF Antibody / hCLE (FY12571)

Catalog No.	Formulation	Size
FY12571	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, Mouse, Rat
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	Q9Y224
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml Immunocytochemistry/Immunofluorescence : 5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This RTRAF antibody is available for research use only.

Description

RTRAF antibody detects RNA transcription, translation, and transport factor, a multifunctional RNA-binding protein involved in mRNA export, transcriptional regulation, and translation initiation. RTRAF interacts with transcription machinery and translation factors, serving as a molecular bridge that coordinates gene expression at multiple levels. The RTRAF antibody is used in RNA biology, gene expression, and epigenetic studies to investigate transcriptional and post-transcriptional regulation.

RTRAF is encoded by the RTRAF gene located on human chromosome 17q23.3. The protein is approximately 375 amino acids long and localizes to both the nucleus and cytoplasm, reflecting its diverse functions. It forms complexes with RNA polymerase II, transcription elongation factors, and RNA helicases, linking transcription with RNA processing and export. RTRAF also associates with translation initiation factor eIF3, regulating mRNA translation efficiency.

The RTRAF antibody detects a 43 kilodalton band by western blot and demonstrates both nuclear speckle and cytoplasmic punctate staining in immunofluorescence assays. RTRAF participates in gene expression control by influencing promoter clearance, mRNA splicing, and ribosome loading. Its loss disrupts RNA metabolism, leading to

reduced protein synthesis and altered stress granule dynamics.

Functionally, RTRAF has been linked to viral replication, as it enhances viral RNA translation and replication complex assembly in infected cells. In cancer, RTRAF expression correlates with increased proliferation and tumor aggressiveness due to its role in sustaining translation of growth-related mRNAs. It also contributes to chromatin organization by interacting with histone modifiers and transcriptional regulators.

Through its integration of transcription, RNA transport, and translation, RTRAF acts as a key coordinator of gene expression homeostasis. NSJ Bioreagents provides a validated RTRAF antibody optimized for western blot, immunoprecipitation, and fluorescence microscopy, enabling in-depth study of RNA processing, translation control, and gene regulation under physiological and pathological conditions.

Application Notes

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

Immunogen

E.coli-derived human C14orf166/RTRAF recombinant protein (Position: M1-R244) was used as the immunogen for the RTRAF antibody.

Storage

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