

Product datasheet for **AP20463PU-S**

DBF4 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500 - 1/1000. Immunohistochemistry on paraffin sections 1/50 - 1/200.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of Dbf4 protein. (region surrounding Ile18)
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 77 kDa
Gene Name:	DBF4 zinc finger
Database Link:	Entrez Gene 27214 Mouse Entrez Gene 10926 Human Q9UBU7



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Background:

The Dbf4/Cdc7 protein kinase is essential for the activation of replication origins during S phase. Cdc7-Dbf4 efficiently phosphorylates several proteins that are required for the initiation of DNA replication, including five of the six minichromosome maintenance (Mcm) proteins and the p180 subunit of DNA polymerase alpha-primase. This protein complex consists of the catalytic subunit Cdc7 associating with the regulatory and activating subunit Dbf4, and the kinase activity of the complex is regulated throughout the cell cycle mainly by fluctuating levels of Dbf4. Cdc7 is consistently expressed throughout the cell cycle, while the expression of Dbf4 is absent during G1 phase and accumulates during S and G2 phases. The anaphase-promoting complex rapidly degrades Dbf4 at the time of chromosome segregation, and the stability of Dbf4 remains low during pre-Start G1 phase. The coordinated degradation of Dbf4 and the time of chromosome separation is important to ensuring that prereplicative complexes, which assemble after chromosome segregation, do not immediately re-fire.

Synonyms:

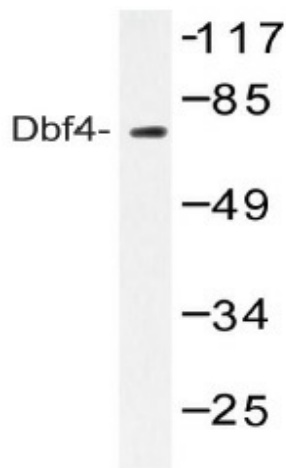
DBF4A, ZDBF1, Chiffon homolog A

Protein Families:

Druggable Genome

Protein Pathways:

Cell cycle

Product images:

Western blot (WB) analysis of Dbf4 antibody (Cat. No.: [AP20463PU-N]) in extracts from NIH-3T3 treated with H₂O₂ 100uM 30'.