

### **Product datasheet for TA387053**

# OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

## **RTF1 Rabbit Polyclonal Antibody**

### **Product data:**

**Product Type:** Primary Antibodies

Applications: IF, IHC, WB

Recommended Dilution: Recommended dilution: WB:1:2000-1:5000, IHC:1:20-1:200, IF:1:50-1:200

Reactivity: Human
Host: Rabbit
Isotype: IgG

Clonality: Polyclonal

Immunogen: Recombinant Human RNA polymerase-associated protein RTF1 homolog protein (620-670AA)

Formulation: Preservative: 0.03% Proclin 300

Constituents: 50% Glycerol, 0.01M PBS, PH 7.4

**Concentration:** lot specific

**Purification:** >95%, Protein G purified

**Conjugation:** Unconjugated

**Storage:** Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

**Stability:** 1 year from dispatch.

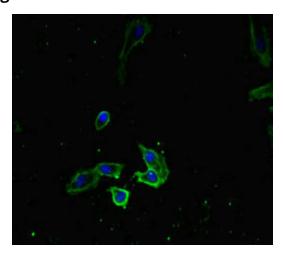
Database Link: Q92541



#### Background:

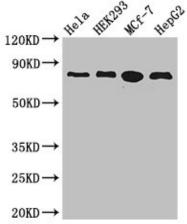
Component of the PAF1 complex (PAF1C) which has multiple functions during transcription by RNA polymerase II and is implicated in regulation of development and maintenance of embryonic stem cell pluripotency. PAF1C associates with RNA polymerase II through interaction with POLR2A CTD non-phosphorylated and 'Ser-2'- and 'Ser-5'-phosphorylated forms and is involved in transcriptional elongation, acting both indepentently and synergistically with TCEA1 and in cooperation with the DSIF complex and HTATSF1. PAF1C is required for transcription of Hox and Wnt target genes. PAF1C is involved in hematopoiesis and stimulates transcriptional activity of KMT2A/MLL1; it promotes leukemogenesis through association with KMT2A/MLL1-rearranged oncoproteins, such as KMT2A/MLL1-MLLT3/AF9 and KMT2A/MLL1-MLLT1/ENL. PAF1C is involved in histone modifications such as ubiquitination of histone H2B and methylation on histone H3 'Lys-4' (H3K4me3). PAF1C recruits the RNF20/40 E3 ubiquitin-protein ligase complex and the E2 enzyme UBE2A or UBE2B to chromatin which mediate monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1); UB2A/B-mediated H2B ubiquitination is proposed to be coupled to transcription. PAF1C is involved in mRNA 3' end formation probably through association with cleavage and poly(A) factors. In case of infection by influenza A strain H3N2, PAF1C associates with viral NS1 protein, thereby regulating gene transcription. Binds single-stranded DNA. Required for maximal induction of heat-shock genes. Required for the trimethylation of histone H3 'Lys-4' (H3K4me3) on genes involved in stem cell pluripotency; this function is synergistic with CXXC1 indicative for an involvement of a SET1 complex (By similarity).

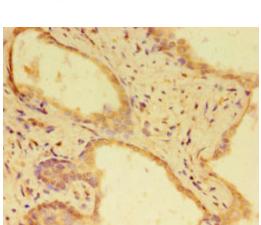
### **Product images:**

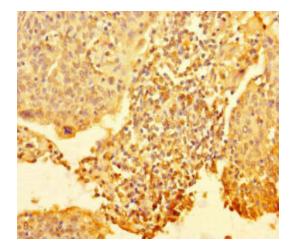


Immunofluorescent analysis of Hela cells using TA387053 at dilution of 1:100 and Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L)









Western Blot

Positive WB detected in: Hela whole cell lysate, HEK293 whole cell lysate, MCF-7 whole cell lysate, Han C3 whole cell lysate.

HepG2 whole cell lysate All lanes: RTF1 antibody at 3.4μg/ml

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 81 kDa Observed band size: 81 kDa

Immunohistochemistry of paraffin-embedded human prostate cancer using TA387053 at dilution of 1:100

Immunohistochemistry of paraffin-embedded human cervical cancer using TA387053 at dilution of 1:100