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# Datasheet for ABIN7118711

# anti-RTF1 antibody

## Overview

| Quantity:    | 100 μg   |
|--------------|--|
| Target:      | RTF1   |
| Reactivity:  | Human, Mouse, Rat  |
| Host:        | Rabbit   |
| Clonality:   | Polyclonal   |
| Conjugate:   | This RTF1 antibody is un-conjugated                      |
| Application: | Western Blotting (WB), ELISA, Immunohistochemistry (IHC) |

#### **Product Details**

| Immunogen:    | Rtf1, Paf1/RNA polymerase II complex component, homolog(S. cerevisiae) |
|---------------|--|
| Isotype:      | IgG  |
| Purification: | Immunogen affinity purified  |
| Purity:       | ≥95 % as determined by SDS-PAGE  |

# **Target Details**

| Target:           | RTF1  |
|-------------------|---|
| Alternative Name: | RTF1 (RTF1 Products)  |
| Background:       | Synonyms:KIAA0252 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).

| Molecular Weight: | 100 kDa               |
|-------------------|-----------------------|
| Gene ID:          | 23168                 |
| UniProt:          | Q92541                |
| Pathways:         | Stem Cell Maintenance |

## **Application Details**

| Application Notes: | WB: 1:500-1:2000, IHC: 1:20-1:200 |
|--------------------|-----------------------------------|
| Restrictions:      | For Research Use only             |

#### Handling

| Format:            | Liquid   |
|--------------------|--|
| Buffer:            | PBS with 0.02 % sodium azide and 50 % glycerol pH 7.3,   |
| Preservative:      | Sodium azide   |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage:           | -20 °C   |

# Handling

| Storage Comment: | -20°C for 12 months (Avoid repeated freeze / thaw cycles.) |
|------------------|--|
| Expiry Date:     | 12 months  |