

## RNA pol II CTD Cit1810 antibody (pAb)

**Catalog Nos:** 65720, 65920, 65721

**RRID:** AB\_3216384

**Application(s):** DB, IP, WB

**Reactivity:** Human

**Volumes:** 100 µl, 50 µl, 10 µl

**Purification:** Affinity Purified

**Host:** Rabbit

**Isotype:** IgG

**Molecular Weight:** 210 kDa

**Background:** **RNA pol II (RNA polymerase II)** is responsible for synthesizing messenger RNA in eukaryotes. **RNA pol II** contains a carboxy terminal domain composed of heptapeptide repeats that are essential for polymerase activity. These repeats contain serine and threonine residues that are phosphorylated in actively transcribing RNA polymerase. In addition, **RNA pol II**, in combination with several other polymerase subunits, form the DNA binding domain of the polymerase, a groove in which the DNA template is transcribed into RNA.

This antibody is specific for the deamination of arginine and its conversion to citrulline by peptidyl arginine deiminase 2 (PADI2), an enzyme that has been associated with several diseases, including cancer. Among the PADI family members, only PADI2 citrullinates R1810 (Cit1810) at repeat 31 of the CTD. Loss of R1810 result in increased amounts of RNAP2 at transcription start sites, reduce gene expression, and inhibits cell proliferation.

**Immunogen:** This RNA pol II CTD Cit 1810 antibody was raised against a peptide containing the RNA Pol II CTD sequence containing citrulline and corresponding to human RNA pol II.

**Buffer:** Purified IgG in 70 mM Tris, 32 mM NaOAc, 0.035% sodium azide, 30% glycerol and 0.5 mg/mL BSA. Sodium azide is highly toxic.

### Application Notes:

Applications Validated by Active Motif:

IP: 4 - 10 µl per IP

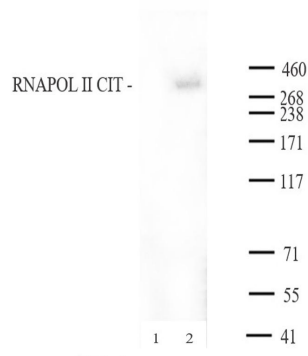
WB: 1:500 - 1:2,000 dilution

DB: 1:500 dilution

For RNA pol II CTD , we also offer AbFlex® RNA pol II CTD Recombinant Antibody (rAb). For details, see Catalog No. 91151.

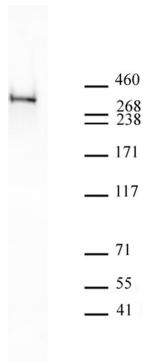
**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



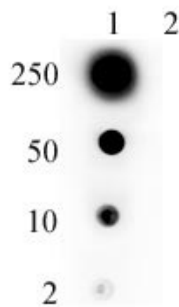
#### RNA pol II CTD Cit1810 antibody (pAb) tested by Immunoprecipitation

250 µg of Raji nuclear extract was immunoprecipitated with 4 µg of either Rabbit IgG (Lane 1) or RNA pol II CTD Cit1810 antibody (Lane 2). Immunoprecipitated proteins were run on SDS-PAGE and probed using a polyclonal antibody specific for RNA pol II CTD Cit1810 at 1:1000.



#### RNA pol II CTD Cit1810 antibody (pAb) tested by Western blot.

20 µg of Raji nuclear extract\* was run on SDS-PAGE and probed with RNA pol II CTD Cit1810 antibody at 1:1000 dilution.



#### RNA pol II CTD Cit1810 antibody specificity is shown by Dot Blot.

Peptides were spotted onto Nitrocellulose as follows: Lane 1 - RNA pol II CTD Citrulline modified peptide; Lane 2 - RNA pol II CTD unmodified; The blot was probed with RNA pol II CTD Cit1810 at a 1:500 dilution.