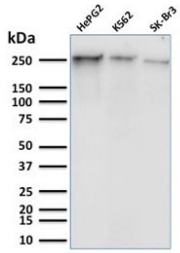
Phospho-RNA polymerase II Antibody (pS5) / POLR2A [clone CTD 8A7] (V7525)

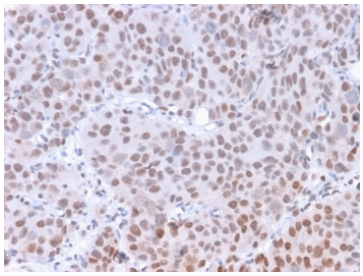
Catalog No.	Formulation	Size
V7525-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7525-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7525SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7525IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

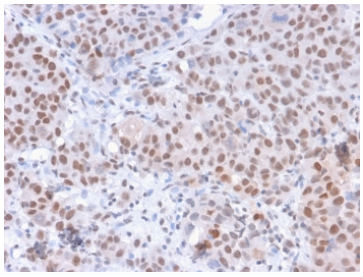
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgM, kappa
Clone Name	CTD 8A7
Purity	PEG precipitation
UniProt	P24928
Localization	Nuclear
Applications	Flow Cytometry : 1-2ug/10^6 cells Immunofluorescence : 1-2ug/ml Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This phospho-RNA polymerase II antibody is available for research use only.



Western blot testing of human HepG2, K562, and SK-BR-3 cell lysate with phospho-RNA polymerase II antibody (clone CTD 8A7). Routinely observed molecular weight: 200-250 kDa.



IHC staining of FFPE human colon carcinoma with phospho-RNA polymerase II antibody (clone CTD 8A7). HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min and allow to cool before testing.



IHC staining of FFPE human colon carcinoma with phospho-RNA polymerase II antibody (clone CTD 8A7). HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min and allow to cool before testing.

Description

RNA polymerase II (Pol II) is an enzyme that is composed of 12 subunits and is responsible for the transcription of protein-coding genes. Transcription initiation requires Pol II-mediated recruitment of transcription machinery to a target promoter, thereby allowing transcription to begin. The largest subunit of Pol II (referred to as RPB1 or RPB205) is a 1,840 amino acid protein that contains one C2H2-type zinc finger and a C-terminal domain comprised of several heptapeptide repeats. Although Pol II function requires the cooperation of all twelve subunits, the largest subunit conveys Pol II catalytic activity and, together with the second largest subunit, forms the active center of the Pol II enzyme. Additionally, the large subunit participates in forming the DNA-binding domain of Pol II, a groove that is necessary for transcription of the DNA template. Without proper function of the large subunit, mRNA synthesis and subsequent transcription elongation cannot occur.

Application Notes

Optimal dilution of the recombinant phospho-RNA polymerase II antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

The immunogen for this phospho-RNA polymerase II antibody was 10 repeats of synthetic peptide YSPTSPS using chemically synthesized phospho-S5.

Storage

Store the phospho-RNA polymerase II antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).