

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse RNA Polymerase II/POLR2A in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human RNA Polymerase II/POLR2A Leu15-Leu354 Accession # P24928
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

POLR2A (DNA-directed RNA Polymerase II subunit RPB1; also subunit A) is a 200-220 kDa member of the RNA polymerase β -chain family of proteins. It is ubiquitously expressed and represents the largest subunit of RNA polymerase II, the catalytic mechanism for the synthesis of mRNA. Human POLR2A is 1970 amino acids (aa) in length. It contains an N-terminus with six RNA polymerase domains (aa 15-1079), and a C-terminus (CTD) with 52 seven aa repeats (-YSPTSPS-) that serve as a platform for polymerase subunit interaction. When these sequences are hyperphosphorylated, this subunit is called RNA pol II α ; when hypophosphorylated, the subunit becomes RNA pol II β . Isoforms exist that show a 60 aa substitution for aa 1-95, a 24 aa substitution for aa 1-445, and an Arg substitution for aa 1498-1536. Full-length human and mouse POLR2A sequences differ by only one amino acid (Thr1856Ala).

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