

## Product datasheet for **AP21166PU-N**

### **RPB11 (POLR2J) Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	<b>Western blot:</b> 1/500 - 1/1000.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of POLR2J1 protein. (region surrounding Asp24)
Formulation:	Phosphate buffered saline (PBS), pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% Sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 13 kDa
Gene Name:	polymerase (RNA) II subunit J
Database Link:	<a href="#">Entrez Gene 20022 Mouse</a> <a href="#">Entrez Gene 5439 Human</a> <a href="#">P52435</a>



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**Background:**

Four independent genes encoding various variants of the hRPB11 subunit of Homo sapiens RNA polymerase II were revealed in human chromosome 7. Three genes (POLR2 J1, POLR2 J2, and POLR2 J3) form a cluster of total length of 214 530 bp in the genetic locus 7q22.1 on the long arm of chromosome 7 (contig NT\_007933). The fourth gene (POLR2 J4, 31 040 bp) was localized in the cytogenetic locus 7p13 of the short arm of chromosome 7 (contig NT\_007819). An analysis enabled us to refine dissimilar experimental data on the mapping of the hRPB11 subunit gene on chromosome 7. In particular, the presence of three sites of its localization according to data on hybridization with fluorescent-labeled probes (the FISH method) was explained. It was established that, upon the expression of the four human POLR2 J genes, at least 14 types of mature mRNAs encoding somewhat differing hRPB11 isoforms can be synthesized. Eleven of these mRNAs were revealed (as full-length copies or clearly identifiable fragments) in the available databases of expressed sequence tags and cDNAs. The most probable scheme of origination of the multiple genes of the POLR2 J family as a result of three consecutive segmented duplications increasing in size was proposed and substantiated. On the basis of the scheme, some assumptions on the pathways of evolution of separate human genes and the mechanisms of generation of protein diversity in higher eukaryotes were made.

**Synonyms:**

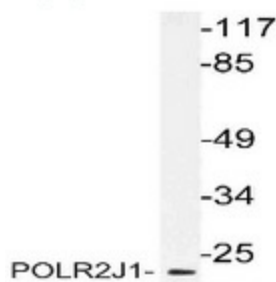
RNA polymerase II subunit B11-a, POLR2J1, RPB11a

**Protein Families:**

Transcription Factors

**Protein Pathways:**

Huntington's disease, Metabolic pathways, Purine metabolism, Pyrimidine metabolism, RNA polymerase

**Product images:**

Western blot analysis of POLR2J1 in extracts from RAW264.7 cells using POLR2J antibody (Cat.-No. AP21166PU-N).