

## SMN2 Polyclonal Antibody

**Catalog No.** E-AB-64218

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

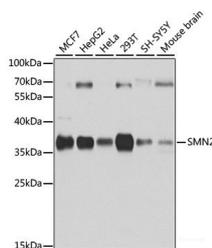
### Description

<b>Reactivity</b>	Human,Mouse,Rat
<b>Immunogen</b>	Recombinant fusion protein of human SMN2
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Purification</b>	Affinity purification
<b>Conjugation</b>	Unconjugated
<b>Formulation</b>	PBS with 0.02% sodium azide,50% glycerol,pH7.3.

### Applications Recommended Dilution

<b>WB</b>	1:500-1:2000
<b>IF</b>	1:50-1:200

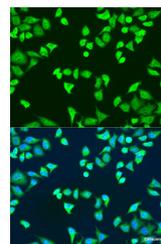
### Data



Western blot analysis of extracts of various cell lines using SMN2 Polyclonal Antibody at 1:1000 dilution.

**Observed Mw:35kDa**

**Calculated Mw:27kDa/28kDa/30kDa/31kDa**



Immunofluorescence analysis of U2OS cells using SMN2 Polyclonal Antibody at dilution of 1:100.

Blue: DAPI for nuclear staining.

### Preparation & Storage

**Storage** Store at -20°C. Avoid freeze / thaw cycles.

### Background

This gene is part of a 500 kb inverted duplication on chromosome 5q13. This duplicated region contains at least four genes and repetitive elements which make it prone to rearrangements and deletions. The telomeric and centromeric copies of this gene are nearly identical and encode the same protein. While mutations in the telomeric copy are associated with spinal muscular atrophy, mutations in this gene, the centromeric copy, do not lead to disease. The critical sequence difference between the two genes is a single nucleotide in exon 7, which is thought to be an exon splice enhancer. Note that the nine exons of both the telomeric and centromeric copies are designated historically as exon 1, 2a, 2b, and 3-8. It is thought that gene conversion events may involve the two genes, leading to varying copy numbers of each gene. The full length protein encoded by this gene localizes to both the cytoplasm and the nucleus. Within the nucleus, the protein localizes to subnuclear bodies called gems which are found near coiled bodies containing high concentrations of small ribonucleoproteins (snRNPs). This protein forms heteromeric complexes with proteins such as SIP1 and GEMIN4, and

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also interacts with several proteins known to be involved in the biogenesis of snRNPs, such as hnRNP U protein and the small nucleolar RNA binding protein. Four transcript variants encoding distinct isoforms have been described.