



Recombinant Human U1-snRNP A [His] (DAG4835)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Recombinant human U1-snRNP A, his-tagged
Antigen Description	Small nuclear ribonucleoprotein complexes (abbreviated as U-snRNP) are essential for splicing of precursor mRNA molecules. U1-snRNP is the most abundant RNP particle in the nucleus and consists of one small uridylate-rich RNA (U1 RNA) complexed with several proteins: the three 68/70 kDa, A, C polypeptides are unique to the U1-snRNP particle, whereas 7 so-called Sm proteins (B/B', D1, D2, D3, E, F, G) form a core subparticle that is common to all U-snRNP complexes. Both the U1-specific proteins and the Sm core particle are targets of autoantibodies which classically have been called the RNP and RNP-Sm specificities, respectively. A clean diagnostic distinction of these specificities has been complicated by the biochemical difficulties of producing clean subparticle fractions from native sources. The use of single recombinant proteins as antigenic targets guarantees a much higher sensitivity and specificity and is the only way to determine RNP antibodies <i>sensu stricto</i> without the disturbing influence of Sm antigens; also with single U1 proteins antibodies will be detected which can be missed because of steric hindrance when using the RNP-Sm complex in an assay. Autoantibodies to U1-snRNP are present in 95% of patients with mixed connective tissue disease (MCTD) and 30% of patients with SLE. Antibodies against the 68/70-kDa protein are known to have a high clinical significance in MCTD patients. The "68/70-kDa" nomenclature of this protein refers to the fact that different splice variants of the protein are found in human cells.
Species	Human
Purity	SDS-PAGE (purity > 90%); Western blot with i: MCTD sera (Mixed Connective Tissue Disease); ii: monoclonal anti-hexa-His-tag antibody.
Conjugate	His
Applications	solid (ELISA) and fluid phase diagnostic assays.
Concentration	0.3–0.5 µg/ml (depending on the type of ELISA plate and coating buffer). Suitable for labeling

of functional groups.

Preservative None

Storage 2-8°C short term, -20°C long term

BACKGROUND

Keywords small nuclear ribonucleoprotein polypeptide A; 11151; Ensembl:ENSG00000077312; U1 small nuclear ribonucleoprotein A; U1 snRNP A; U1 snRNP-specific protein A; U1 small nuclear RNP-specific A; SNRPA; U1A; Mud1; U1-A
