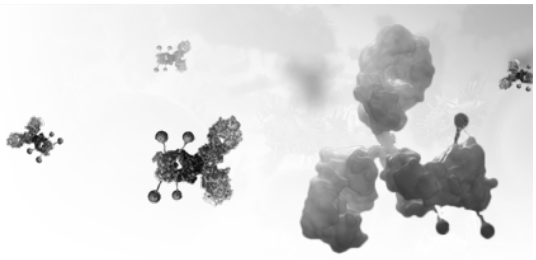

Human U1-snRNP [His] (DAG4834)

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

PRODUCT INFORMATION

Species	Human
Purity	>90% as determined by SDS-PAGE
Conjugate	His
Applications	WB, ELISA
Molecular Weight	45 kDa
Format	Liquid
Concentration	Batch dependent - please inquire should you have specific requirements
Size	100 µg
Preservative	None
Storage	2-8°C short term, -20°C long term

BACKGROUND

Introduction	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

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	proteins as antigenic targets guarantees a much higher sensitivity and specificity and is the only way to determine RNP antibodies sensu stricto 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.
Keywords	Small nucleoprotein particles; snRNPs

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